THE NATION'S SCHOOLS

DEVOTED TO THE APPLICATION OF RESEARCH TO THE BUILDING, EQUIPMENT AND ADMINISTRATION OF SCHOOLS

VOLUME XII OCTOBER, 1933 NUMBER 4

Looking Forward

DEFICIENCIES in current tax collections are not, so far as fragmentary local studies show, completely indicative of actual inability to pay. Analysis of tax delinquencies in any community will probably show an almost equal relationship between small home owners who cannot pay and operators of commercial income bearing and speculative properties who do not want to pay. In some instances the small home owner has been used as a screen. In other instances organized professional politics has found it more advantageous to provide means whereby large holders of real property may temporarily escape. The complete facts in each community should be gathered and given full publicity. Public opinion and social pressure will then produce a remarkable decrease in tax delinquencies.

ONE major responsibility of the teaching profession is to keep the public fully informed of the purpose, value, conditions and needs of the schools. The obvious implication is that the profession shall always keep faith with the public and honestly tell all of the facts.

What are the facts? Public education has been hard hit by the depression. Decreased appropriations and the pitiful economic state of many teachers are sufficient evidence. Proportionally, schools have been hit harder than other governmental agencies. This condition is due to the depression, to a cumbersome and obsolete system of taxation, to an extravagant traditional system of local administration and, in minor measure, to the organized efforts of selfish fiscal, industrial, speculative and reactionary political interests. There is little evidence to substantiate the claim that the people as a whole have changed their attitude toward continued intellectual opportunity for their children. Despite heavy effort, the pressure groups did not make much final headway against the fundamental structure and extent of public education.

* * *

Have we given the people all of these facts? Not entirely. We have placed more than sufficient emphasis on those organized interests that are opposed fundamentally to a democratic system of universal education. Public education today is in dire need of money. Schools need money to pay teachers a living professional wage. They need money to replace textbooks and scientific laboratory equipment so essential to sound instruction. They need buildings to make room for the membership that has steadily increased while industry was in the doldrums. We are also telling the people of this need and our representatives, now rational and panic-cured, are again ready to consider objectively these social needs.

Some are asking the state for huge sums immediately. Others are begging for federal aid up to one billion dollars. But we are not telling the people that the addition of these large sums will not solve the problem. We are not telling them that so long as our present system of extravagant local administration exists, with inadequate districts and boards of education, there can be little hope for genuine economy. No emphasis is placed on the senseless extravagance of local civil government. We are not telling the public that huge extra grants will not solve the problem if the present obsolete and unfair system of taxation continues. In these fundamental issues it must be admitted that we are grossly remiss.

Let us tell the truth. Little increase in revenue

may reasonably be expected until there is a greater industrial acceleration. Instead of waiting for manna to drop, would it not be much more intelligent for the profession to meet the issue squarely and tell the people the complete truth? If we are to build solidly for the next generation, the foundation of structure and support must be sound. Huge sums for current relief will only fasten upon the public and upon the state for another decade the present extravagant and senseless system of local administration.

* * *

A complete reorganization of local civil and school government is a fundamental necessity. After that it may be desirable to look to the federal government for aid. No further burden should be added to the people through increased taxation until the present tax system has been changed so that all wealth is subject to levy and each person pays in accordance with benefits received. Let us tell the people of the money need and also how it may be solved without large extra revenues.

What about the child during this period of reorganization? No one who pretends to have any professional knowledge of the problem will concede that the child was adequately protected before the late economic debacle, save in large urban centers. Unless we face the issue squarely the child will continue to suffer. This is no time for emotional oratorical specialists to weep from every platform not already taken by other alarmists, but it is time to tell the people all the facts. Many persons feel that the teaching profession, in imitation of the politician, is trying to escape the fundamental task by turning its eyes in supplication and yearning toward bluer but unknown skies. Let's face the facts squarely.

IT IS impossible not to admire and applaud most heartily the University of Chicago whose educational prestige and leadership under President Robert M. Hutchins and Dr. Charles H. Judd were used so effectively in the fight to save Chicago's school program from the politicians and the fiscal interests arrayed against it. The spectacle of an institution of higher learning dropping the timidity and fear that endowment building campaigns smugly forced upon it and aggressively meeting its responsibilities is refreshing. It is a real pleasure to see an educationist standing well balanced and fighting fearlessly for justice against the potentially powerful and carefully screened interests that appear to operate the puppet appointees to the board of education of Chicago.

SCHOOL executives should be chary of current efforts by mushroom building materials concerns to substitute new products for well known, substantial material. School buildings are expected to serve several generations. The greatest possible extravagance is the use of cheap and untried structural materials. High and continuous upkeep costs will eat up the apparent savings within five years. It is good practice during this period of uncertainty to insist on the products of established and responsible organizations rather than to listen to the high pressure talks of will-o'-the-wisp salesmen. This applies also to supplies and equipment. Buy for quality, not for price.

DISCUSSION has been raised at most of the recent national educational meetings concerning the professional principle of "equal pay for equal work." At each meeting several gentlemen proceeded to talk against equal pay, urging differentials for men because "their services are of greater value" or "we need to attract more and better men to public school teaching." Then the women arose to defend the principle they have struggled so long to secure. The meeting usually ended with the adoption of a resolution favoring retention and expansion of the principle of equal pay. It is doubtful whether the preponderance of women in the profession will ever be satisfied to accept again the male superiority concept. The presumption is of doubtful validity, both theoretically and practically. The fact remains that public education does need more men and more masculine men.

Is it possible to recognize the fundamental principle now rather generally established and still attract the desired number of men? I believe so. Let us agree that equal service commands and deserves equal rewards. This principle considers only service and not social condition. If the state believes it necessary to stimulate the development of normal families by male members of the teaching profession, certain additional social allowances may be made for wife and for children. These differentials would be paid not for teaching service but for the maintenance and development of a desirable social state. If the problem is attacked from this angle, the differential might be provided without developing conflicts or sacrificing the principle of equal pay which the profession struggled many years to secure and which it would be loath to lose.

The Editor

Functional Philosophy of Education Is the Administrator's Compass

Leadership means working with and through individuals, and the teachers as well as the administrator must understand the real meaning of education

By JOHN K. NORTON, Professor of Education, Teachers College, Columbia University

ADMINISTRATORS are of three types: opportunists, technicians and statesmen. The opportunist lets his course be governed almost solely by circumstances. He waits until an issue arises and then tries to handle it under the pressure of the moment, often without due consideration to other current issues or to future events. Administering school systems on the basis of lucky chances, good guesses and action taken in the nick of time in an effort to please everybody is a get-right-quick scheme and is about as successful these days as a get-rich-quick scheme.

Statesmanship Has Two Vital Elements

For opportunists, sufficient unto the day is the evil thereof. Only occasionally do they stop to ponder why certain issues never stay settled but constantly recur in their school systems. Nor do they often stop to think why their entire time is largely devoted to deciding what is the best move in the immediate situation which is generally a tight pinch, unforeseen and unplanned.

A second and larger group of school administrators may be classified as educational technicians. They are so engrossed in the machinery of administration that they fail to see the major current social, economic and industrial issues, as well as the major purposes of school administration. They exhibit statistical tables, graphs, charts and schedules which cannot always be interpreted in a broad clear-cut fashion. Test results of many varieties and specific directions for the handling of all routine matters have been worked out with great precision. In fact, no detail of educational housekeeping escapes the vigilance of these administrative technicians. They are often so harassed by the tools and implements of school administration that they look upon them as ends in themselves rather than as means to the end of all school administrative procedures—the effective education of boys and girls.

Fortunately there is a third group of school administrators who may be classed as educational statesmen. They are opportunists only to the extent that they wait until the season is ripe—sometimes until the psychologic moment arrives—to present their farsighted plans. Nor do they merely wait until opportunity knocks at their doors. They plan for the advancement of their schools, not merely for today and tomorrow but for months and even years ahead. In other words, they know what the schools are for. They have a long-time educational plan for which they prepare their teachers as well as their communities. Thus they help to create opportunity. These educational statesmen are technicians only to the extent that they want all pertinent facts and figures in formulating and carrying out their plans. For them, statistics, charts, graphs and administrative techniques and details are means, not ends.

Statesmanship in any field consists of at least two elements: a carefully formulated long-time plan for social betterment based on knowledge, thought and conviction, and a program of action by which the plan is to be achieved.

What Is Good Administration?

What, then, constitutes good school administration? General administration is made up of those elements essential to the provision of a sound program of education that guarantees dynamic leadership for the total personnel—principals, teachers and pupils—of the college or of the school system and provides at minimum cost and loss of time the means essential to the realization of the desired ends.

The first prerequisite in good school administration is a functional philosophy of education. This philosophy will reflect the organization and the philosophy of the state or of the group for which the school exists. In a state ruled by the theory that might is right, the school system tends to be

autocratic and the superintendent is the chief autocrat. The schools of a people who seek social justice through a democratic mode of living will reflect their aspirations. To attain sovietism, fascism, autocracy or democracy, a people must have an educational system attuned in theory and in practice to the ideals of that particular political faith.

School administration also reflects the pattern of thought of the age in which it functions. When the masses of the people lived in ignorance, superstition and fear, leaders usually held their offices because of physical strength and autocracy flourished. In nations governed by the wielding of a big stick to which the rank and file of people submit, school administration quite naturally is autocratic and discipline in the classroom is maintained by a birch switch.

Democratic Organization Is the Answer

However, to live today in a civilization in which science is a major factor means to live in an orderly world. With the growth of the scientific spirit, the idea of tolerance and the democratic ideal comes a new civilization. What kind of education does it call for? What form of school administration is appropriate? There is only one answer to the last question. Educational statesmanship today means democratic school organization and leadership.

Democratic school administration means that a board of regents, college president and instructional staff—or, in a public school system, board members, superintendent, principals and teachers —are not cramped by authoritarian relationships. Each contributes his best thought and effort and receives help and encouragement from his coworkers in carrying out an educational program that challenges his imagination, in the formulation of which he shares and for the realization of which he feels a personal responsibility. Relationships and atmosphere in school board rooms and in the superintendent's office find their counterparts in many and varied forms within principals' offices and classrooms. In other words, the attitude of the general administrator either cramps the style or expands the ego of the other administrators in the system.

What is meant by democracy in general school administration and how is it fostered? The very method by which the college president or the superintendent of schools organizes his staff facilitates or hinders the practice of democratic ideals throughout the entire college or school system. A despotic plan, no matter how benevolent, will not develop leaders who can in turn assist children to become leaders. The superintendent of schools or the college president who takes the time and trouble to hold conferences with his staff when he is formulating new policies and evaluating the success of old policies and procedures sets an example for each of his assistants.

The college president's organization of committees of deans, department heads and staff members to consider such questions as possible and wise economies, reorganization of departments and revision of curricula and courses of study, functions toward better teaching not only in the conclusions arrived at by the committee members but also in the glow of self-respect, professional responsibility and clear insight that is enkindled through their contact with each other and with the president. Similar gains result from the superintendent's organization of committees of principals, supervisors and teachers to study questions with which all are concerned. Faculty meetings, committee conferences and student councils can give living form to democratic ideals.

In the last analysis, the public holds the executive responsible for the administration of the college or the school system. But this does not mean that responsibility cannot be delegated. No delegation of authority might be defensible if all administrators were omniscient, if teaching were so cut and dried a procedure that specific rules applied to all situations, if teachers followed practices dictated by a superior officer as well as they do those in which they have a share in planning and if teaching were not a creative enterprise whose chief goals include the development of right attitudes and ideals and the teaching of boys and girls to initiate, to plan and to think for themselves so that they can make their way in a rapidly changing society.

The Meaning of Leadership

A sound administrative program must be based on a functional philosophy of education, but the real meaning of education must be mastered by the teachers as well as by the administrator. A general administrator cannot hope to direct the work of principals, department heads and teachers toward the purpose he has in mind unless they understand both the goal to be attained and the methods that promise to secure the desired results. This calls not only for the selection of competent staff members but also for their further training in service.

Leadership means working with and through individuals. Democratic school administration assumes that the college president or school superintendent has such confidence in his subordinates that he delegates responsibility freely, allows some initiative in the carrying out of assigned duties, expects good results and gets them. Educational leadership finds expression through the personality of individuals. Hence, the necessity for the continu-

ous growth in service of subordinates as well as of the leader.

Inestimable good would result if every college administrator and every school executive would organize study groups and conferences on social trends and their relation to a functional philosophy of education. While the school system must promote social stability, it must also function in terms of changing conditions and of changing human needs. The educator's professional study must not be limited to teaching techniques applicable to a static curriculum or to problems of school budgets and school building programs, necessary as these are. It must include issues of such major significance as the implications of the growing interdependence of nations, the underlying causes of crime, the forces back of the breakdown of the economic system and possible ways out of the present dilemma. In other words, school administrators who are educational statesmen rather than opportunists and technicians should be concerned with the stability and progressive development of the whole social structure and the part which education should have in that development.

A dynamic functional philosophy of education not only gives the school administrator his bearings amid present social morasses but it points out the direction which his efforts should take. More than that, it helps him to judge the relative importance of his many administrative duties.

The school must promote social stability and it must function in terms of changing human needs. A dynamic functional philosophy of education is the administrator's compass in that it gives definite direction to his effort. It is the balance in which he weighs his duties and discovers the relative importance of the thousand activities that go to make up his important job.

Illiteracy in the United States

Data showing the percentage of illiterates in each of the 3,007 counties in the forty-eight states have been compiled in chart form by the U. S. Office of Education. The percentage increased in 511 counties during the period from 1920 to 1930.

An influx of illiterate Mexicans into the areas bordering on Mexico, increases in the French-Canadian population of several counties in the New England States and a slackening of educational standards in some of the rural sections of the United States is largely responsible for the growth in illiteracy in these counties, it is pointed out.

Texas had the largest number of increases in county illiteracy rates in 1930 as compared with 1920. Colorado had the second largest increase and Kansas ranked third.

While no state as a whole showed an increase in illiteracy between the two censuses, the number of native white illiterates in New Hampshire increased slightly and there was a small increase in the number of illiterates in the Negro populations of New Mexico and Wisconsin.

Illiteracy in this country has shown a steady decline since the first census of illiteracy was taken in 1870. In that year 20 per cent of the total population above ten years of age were illiterate. The percentages of illiteracy for the censuses since that time are: 1880, 17; 1890, 13.3; 1900, 10.7; 1910, 7.7; 1920, 6; 1930, 4.3.

Iowa, with an illiteracy of 0.8 per cent in 1930, had the least illiteracy of any state. Washington and Oregon ranked second and third with an illiteracy of 1 per cent, Idaho was fourth, and Utah, Nebraska, South Dakota and Kansas were tied for fifth, sixth, seventh and eighth places.

Eighteen states have illiteracy percentages higher than the average for the United States. South Carolina, with a rate of 14.9 per cent, had the highest percentage of illiteracy. Louisiana ranked second and New Mexico, third.

Safeguarding Against Excessive Heating Plant Repairs

The annual cost of heating system operation is a sizable proportion of the total annual expense for operating the building it serves. While the actual fuel cost is the major part of the annual heating system expense, heat system maintenance may be excessive if precautions are not exercised to keep service and repair bills within reasonable bounds. This is of particular importance where automatic fuel burning equipment is installed. If the following precautions are observed, says *Domestic Engineering*, the heating system will yield greater satisfaction:

To reduce maintenance, the heating system should be given careful attention several times throughout the heating season. Particular attention should be given the following items: (1) preparing the boiler for the summer shutdown; (2) placing the boiler in operation in the fall; (3) checking the controls of automatic fuel burning equipment at least once a year, preferably when the equipment is placed in operation in the fall, and (4) attending to the boiler during the heating season to ensure that flues are free from an excessive accumulation of soot and ash and that clinkers and ashes are not allowed to accumulate in the bottom of the ashpit.

Professional Spirit—What Are the Outward Signs?

Enthusiasm for the calling, willingness to keep abreast of the times and appreciation for the profession are the three principal ingredients of professional spirit

By HELEN SPARKS, Teacher, Raton, N. M.

WITHIN the educational field nowadays one frequently hears a phrase that has been too loosely defined. The expression is "professional spirit."

There must of necessity be outward and visible signs of this inward and spiritual grace called professional spirit. These signs must be related to the occupation of teaching if we are considering educational professional spirit. They must be exhibited by those participating in this calling for gain, and they must indicate the mind, temper, disposition and enthusiasm of such individuals. The following list indicates the type of signs we may look for in those endowed with professional spirit.

Enthusiasm is one of these signs. Enthusiasm in the field of sports is indicated by willingness to play the game in spite of fatigue, injury, disagreement with other members of the team or with the umpire. However, there is an important distinction between sports and an occupation such as education. In the field of sports the participants are there as a matter of choice on the part of the coach and themselves. Any one of the group may be dismissed whenever his dismissal, in the opinion of the coach, will benefit the group. In the field of education, especially in the elementary school, many of the participants are there as a matter of law for a certain length of time.

How Enthusiasm Is Expressed

As a consequence, the professional educational player often feels the conflict of opposing demands upon himself. The umpire may be demanding that which he feels will work injury to those under his direction. In such a case he is torn between a desire to play the game as the sportsman does and the desire to be honest and fair to those entrusted to him. He feels the same conflict at times in his contacts with his co-workers.

In addition to the sign of enthusiasm expressed in a demand that the participant play the game according to the rules of good sportsmanship, there is the enthusiasm expressed in willingness to undergo the fatigue of long hours of preparation and to forego certain pleasures in order to meet the expense of preparation. This will extend beyond the period of preparation itself to the period of participation in the profession.

Keeping Abreast of the Times

Willingness to keep abreast of the times in education is another outward sign of professional spirit. This sign may find outward expression in a variety of ways. To some it means constant experimentation, either with methods developed in other schools and adapted to the conditions of the school in which the experimenter is working, or with original methods which the individual educator has thought out and developed in connection with his particular job.

To others keeping abreast of the times means a weighing of the philosophies underlying various types of educational method. Following this weighing, these individuals will accept some of these philosophies, showing their acceptance through the manner in which they work. To some it means a rather wide random reading in the field of education. These individuals are frequently not such careful workers as those belonging to the groups previously mentioned. Others accept membership in groups as indicative of a willingness to keep abreast of the times. They belong to the history association, the English club, the general teachers' associations, the dramatics organization and other special groups.

Some persons consider membership in the national, state, county and local educational associations as the only sign of willingness to keep up with professional advances. This attitude probably grows out of the training of the individual and the influence exerted by those with whom he comes

in intimate contact at a particular time. To be specific, suppose the case of Teacher A is considered. Let it be assumed that she has been trained in an institution with a strong history department. Perhaps the instructor under whom she does the greater part of her work is the president of the national history association. Teacher A is led to believe that membership in this association will mark her as a professionally minded teacher. She is glad to pay the fees and join the association. Her attitude is biased in favor of making contacts with other persons working in the same field, due to her early training.

Appreciation for the Profession

When Teacher A gets out on a job, she may come in contact with a superintendent whose training has been in no particular subject field. Pressure is exerted on him through the officers of the various general educational associations to have all of his faculty become members of these associations. He feels that his professional spirit is indicated by the number of members he can secure. The argument is two-sided and the side which any particular individual takes depends upon his training and contacts.

Other signs have to do with appreciation for the profession and its relation to others. While some of these signs are plainly visible, others are more or less intangible. Members of the profession who express these signs show a respect for the job by being on the job promptly and staying with it until the work of the day, week or year is finished. They forego the types of social activities unacceptable to the local group even though these activities may not be in conflict with their own ideals. They seek to elevate the cultural tastes of those whose standards are below a desirable level as judged by their own opportunities.

Such members try to understand the point of view of those who disagree with them, both within and without their group. They show their appreciation by giving praise where they believe praise is due and they actively seek opportunities to offer this praise. As a part of this appreciation they read, study and take part in those activities which they think will give them an understanding of the relation of their profession to society as a whole. Their attitude is marked by a sincerity of purpose, an honesty of thought and a persistence that enables them to surmount all sorts of obstacles that may arise.

It has come to be accepted as axiomatic that professional spirit is desirable in the fields of law and medicine. Therefore, it seems desirable in the field of education as well. The question at once arises as to how it may be fostered. Three ways are available—imitation, growth and acceptance through information.

Of these three, the method of imitation has perhaps been too much emphasized. Teachers have been coerced into conforming to the social demands of the local community. They have been driven into taking part in experiments which had no meaning to them. They have read millions of words which were to them only words. They have talked glibly of loyalty to the group and have proved by their actions that they had no conception of the meaning of loyalty. They have joined groups of co-workers in specialized fields and have been unconscious of what it was all about. They have attended conventions by the hour and have been unable to apply to their daily work anything heard or demonstrated at these meetings.

Acceptance through information is a step higher on the ladder of professional development. By this means professional spirit will be fostered through the spreading of information as to the effect of certain types of activity. This is the initial step of growth. When information is coupled with an inward recognition and understanding of the significance of professional spirit, the plant has begun to grow and nothing but lack of attention and harsh treatment can prevent its full blooming. It is unfortunate that there are within the group elements that retard growth.

Before considering the factors that prevent development of professional spirit, it is necessary to consider the personnel of the profession. In general the personnel is made up of two classes—classroom teachers and administrators. The latter inevitably become the leaders in the profession. To use a current phrase, the teaching profession is made up of followers and leaders. It is unlike the professions of law and medicine in which the follower and the leader are given approximately the same training.

How Training Courses Differ

Within the educational field, however, there is a decided difference in training. The classroom teacher, as a rule, takes courses in methods for various subjects and general courses in the history and philosophy of education. She seldom takes courses in administrative procedures. The administrator, on the other hand, takes few, if any, courses in methods. He takes some courses in the history and philosophy of education and many courses in administration. This difference in training leads to a lack of appreciation of the problems of each group and serves as a wedge to force the groups apart.

There is another difference of considerable significance. Leaders within the fields of law and

medicine are chosen by the group to serve as leaders and become the choice of the group through outstanding work in the field. This is particularly true in the small local community with a population of ten thousand or less, for example. In the same local community the educational leader is imposed upon the group by outside agencies. A local board of education, composed of men elected to their positions usually because of reputation gained in activities other than education, selects the leader of the educational group without regard to the wishes of the group to be led. What teacher has ever had a part in selecting her superintendent, the man she is required to accept as a leader for the term specified in her contract?

Autocratic Method of Selecting Leaders

Members of legal and medical groups have greater freedom, too. As a rule they are under no legally binding contract to remain within the professional group for a specified length of time or to remain at a certain position. It is true that an intern works under a leader who is not of his choice during the term of his internship but, compared with his entire professional life, this is a period of comparatively short duration and may be considered as a part of his educational preparation. Teachers are under contract to remain for nine months or more and they must work under a leader who has been selected by a board of education for a specified length of time.

Since the strength of a group is determined by its leadership and since the leader has much to do with the development of professional spirit within the group, it is necessary to take into consideration the conditions of leadership in the educational field in order to have a thorough understanding of the development of professional spirit within this group. The leader in medical circles in the local community gains his position through selection by the group. The same thing is true of the law group. It is an essentially democratic procedure and is accompanied by that characteristic of democracy, consideration for the ideals and for the good will of those who are to be led. The leader knows that he remains their leader only so long as he satisfies his followers. This is not true for those within a hospital, for example, but of the total number engaged in medicine in a particular community the number employed in hospitals is small. Neither is it true for the young lawyer who is starting in the office of an older man. However, he usually considers this period part of his preparation, as does the intern.

In the educational group there are few possibilities for advancing into the group of administrators or becoming teachers outside of a definite, organized school. The procedure for selecting leaders within the school group is essentially autocratic. A board selected by those almost wholly outside the educational field determines who shall lead the group. It is an unwritten law that the members of the group, the teachers, shall not take each other and the public into their confidence when considering the weaknesses of the administrator. Hence the members of boards are in no position to discover the real attitude of the group of followers even should they choose to do so. It is inevitable that the leader shall be determined without consideration of the desires of the group. The leader, on the other hand, has limited opportunity to select the group which he is designated to lead. The very autocracy of the method nourishes the seeds of discord.

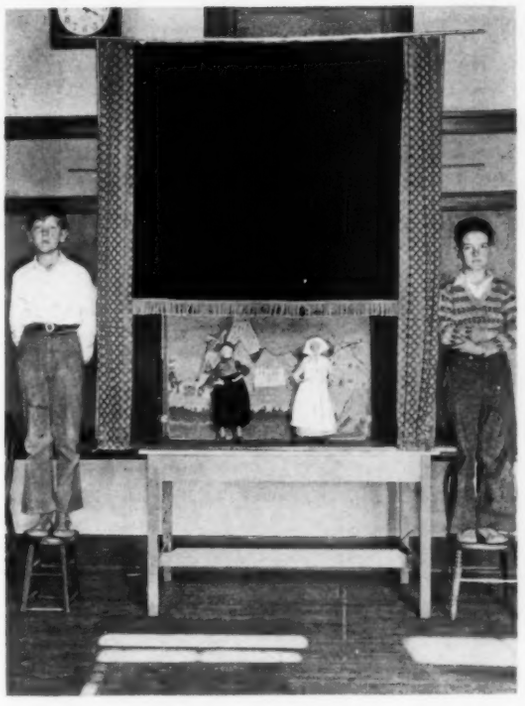
A further cause for discord is the difference in training. The leader prepared for an administrative position has been trained to impose the conditions within which the group shall act. He is taught that such and such rules should be laid down for the group. Unfortunately such factors as the amount of salary which may be paid, the experience which he must have and possibly his church or fraternal connections are factors determining who this leader shall be. Once he is selected, he finds himself between the devil and the deep blue sea. His followers have a right to expect real educational leadership from him. The community and the board of laymen, being unfamiliar with the best of educational theory, frequently fail to understand his efforts. His position depends upon his satisfying them. His teachers, trained for the most part in narrow, specialized fields, fail to understand his effort to establish broad and sound educational policies for the school system. And so the conflict rages.

The Present Condition Can Be Remedied

What will be the outcome so far as professional spirit in the field of education is concerned? It appears that further education is the only solution. The public needs to be taught the significance of professional spirit and what signs to look for when judging. The followers need to be taught the importance of developing professional spirit and the method to be employed in gaining it. The leaders need to be taught to understand the dangers of autocracy, to distinguish the relative value of the various phases of professional spirit and to distinguish between the false appearance of professional spirit as shown by the outward signs and the real spirit of enthusiasm for and appreciation of the profession. Until this education has taken place we must expect a continuation of the present unsatisfactory condition.

Schools Must Convince the People of Their Practical Value

By LILLIAN E. MILES,
San Bernardino City Schools,
San Bernardino, Calif.



When sixth grade pupils made these Dutch dolls and wrote plays and music for them, they learned in a way they will never forget how children in Holland live and learn.

TEACHING children is not the only task that confronts the workers in the public schools of today. They must sell the schools to the people, create on the part of the public an awareness of the tremendous social significance of free education, if the ideal of "opportunity for all" is to survive.

Thinking men and women have envisioned the service free schools might render to society and have dedicated themselves to the cause of education. Unthinking ones are threatening to limit and curtail that service to a hurtful degree, because in these times of financial stress they have hearkened to the criticisms and demands of those who are indifferent to all save selfish interests and personal gain. Certainly there must be economy, but isn't proper education economy? A well rounded education promotes good citizenship, and, according to the *California Classroom Teacher*, February, 1933, it costs about $3,000 per year per man to keep a criminal comfortably in prison, and only about $100 per year to educate a child.

American Education Week is set aside by almost every state in the Union for public observance of the cause of education. However, the problem has been to reach those who most need the education and inspiration that such an observance is designed to offer. Schools are visited and performances attended largely by those already interested and informed about the work of the schools.

Under Supt. Lewis E. Adams, the San Bernardino City Schools, San Bernardino, Calif., have been unusually successful in reaching and interesting large numbers of citizens through a four-year program plan. These programs were begun during the school year 1930-31 and are presented each year during Public Schools Week in the spring of the year. Capacity houses have greeted the performers, although prior to that date when special education weeks were observed in the traditional manner, only a sprinkling of the faithful attended.

In formulating these programs use has been made of the fundamental principle that it is easier to create interest in schools through the children who attend them than by calling in professional lecturers to discuss the coming generation. Through actual performance large numbers of San Bernardino children demonstrate what and how they are taught in the modern school. It is a legitimate method of popularizing education through visual as well as auditory means, and parents are always interested and anxious to attend programs in which their children are the star performers.

The contemplated four-year program, two years of which have been successfully concluded, is as

follows: first year—health and physical education; second year—the fundamentals as they are taught in elementary schools; third year—the junior and senior high school programs; fourth year—a purely cultural program showing accomplishments in art, music, and other subjects.

Since good health and physical well-being are of paramount importance if the child is to make satisfactory progress along the schoolroom way, the purpose of the first program was to show how public schools guard the health interests of children. Numbers of typical schoolroom scenes were enacted. Elementary children were shown taking their daily physical exercises. One of the pupils was in charge of the drills. She scrutinized the posture of each member of her class, pointed out the posture defect and gave an exercise to correct that defect. The little flat-footed boy was set to rising up and down on his toes, the girl with drooping shoulders began vigorous calisthenics, the one with a protruding abdomen was given another type of exercise, and so on. Then a girl with perfect posture was brought to the front, and an explanation given of just what perfect posture means.

Another scene showed Mrs. Dorothea K. Stewart, health supervisor, testing the hearing of a group of children by means of an instrument designed for determining the degree of impairment in hearing. She explained the instrument, demonstrated how the test is given, told how children whose hearing loss is greater than 24 per cent are given lip reading instruction in special classes, while those with a lesser degree of impairment are placed in favored positions in the schoolroom where they can hear and see.

A third scene showed junior high school boys in various tumbling acts and formations. It was a distinct surprise to the larger part of the audience to find that these young boys of junior high school age had attained such skill in acrobatic stunts.

A very different scene was a health play put on by third grade pupils. A band of bad bold pirates reeled on to the stage. They were suffering from scurvy, and fell dying on the "island" while their exhausted captain tried vainly to resuscitate them. Then came the Good Health Fairies of the land—Cabbage, Spinach, Tomatoes, Milk, Fruits—all the healthful foods, to minister to the expiring pirates. Each food fairy told what health giving vitamins she contained, and pointed the way to Good Health

Photos by Nelson Johnston

Every little pupil has an interest all his own in the Tiny Town activity.

Participants of the Public Schools Week program display their knowledge of colonial customs by dancing the minuet.

Land. When the pirates had eaten the healthful foods they became well and strong again.

The high school band and orchestra supplied music during program intermissions.

The following year Public Schools Week saw the equally successful culmination of the second division of the scheduled four-year program—a glimpse at the teaching of fundamentals in the elementary grades. The Weather Man sent a stormy, rainy evening for the program, but notwithstanding the gloomy weather the house was filled.

As an opening feature the combined bands of the junior high schools presented a splendid twenty-minute concert.

In an introductory talk the value of the activity program as it is developed and worked out in the San Bernardino schools under the general direction of Lava Sughrue, elementary supervisor, was explained. Those present were invited to compare their own school days with what children are doing in the present day school.

Three sketches revealed the activities of the elementary schools. In the first sketch second grade pupils presented a lesson in natural science which encompassed their music, reading and art work. A "moving picture show" of the wee folk of the garden, caterpillars, butterflies, toads, snails, afforded material for the nature and the art lesson, while the stories the children told of Tiny Town furnished the basis for their charted reading lesson and for their oral and written English.

In the second sketch sixth grade pupils offered an almost professional puppet show that delighted the audience, as the youngsters by means of puppetry pursued their studies in music, art, grammar and social science.

Since much attention had been given in the city schools throughout the year to the celebration of the Washington Bicentennial, a colonial activity was chosen for the third sketch, in which the children from the various elementary schools throughout the city participated. First, the children and their teacher indicated how an activity is "set up" and motivated. Plans for the day's work were made and discussed.

Then, in the same manner as work is done in the classroom, the pupils appeared on the stage to fashion the colonial clock, the fireplace, the cradle, the closet for china, the spinning wheel, quilted covers, hooked and braided rugs, painted plates, and

These junior high school lads delighted the audience with their acrobatic stunts, which were a part of the Public Schools Week program.

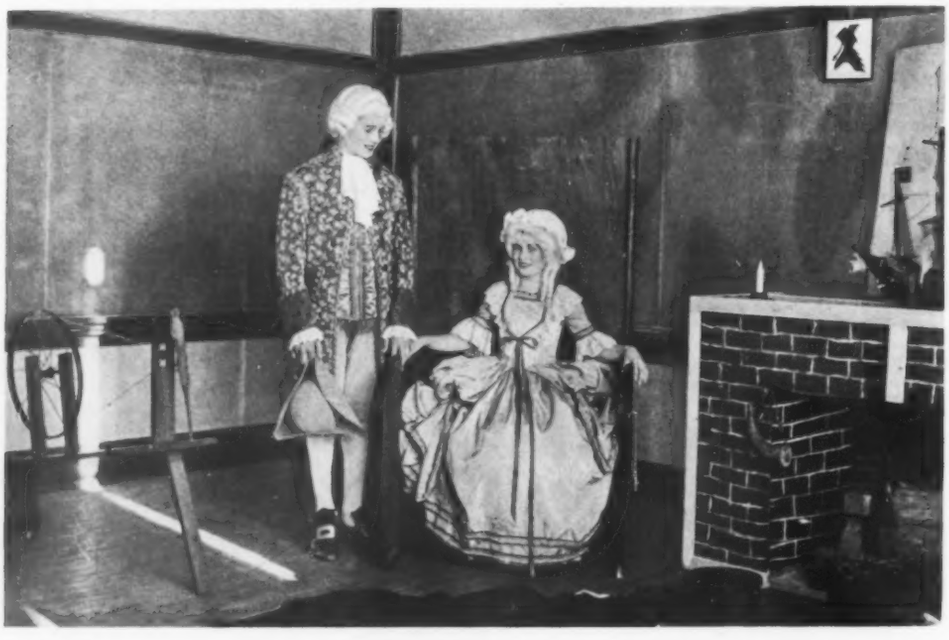
even the samplers and ship models identified with a home during the George Washington era.

At the close of the activity period the children put their work away and sat down to discuss the unit of work that was nearing completion. They talked over their mistakes and their successes.

It had been pointed out to the adult audience that one of the most valuable things about activity work is that the pupils make plans, seek the solution for their problems, and then evaluate the work they have done. This training in planning, executing and analyzing results is invaluable in attacking the problems of later life. The fact was also stressed that the sketches were not something that had been especially prepared for the evening's program, but that similar scenes were taking place in hundreds of schoolrooms all over the city. Only such slight modifications as were necessary in order to assist the audience in understanding what the children were doing were made, as, for example, turning to face the audience and speaking loudly one at a time, instead of talking quietly in small groups.

After the three sketches had been given an arithmetic drill was staged to show that the fundamentals of education are not overlooked in favor of the more fascinating form of activity program. Only thirty seconds was allowed for a pupil's reply, and answers to such problems as "Six times nine, minus four, divided by ten, plus six, minus one, divided by two, equals what?" came with lightning like rapidity. The audience was handicapped there, because comparatively few could perform the mental gymnastics required to keep up with the problems, but at the expiration of the fifteen minutes allowed for this drill most of the pupils were still standing.

As a climax to the interesting revelations of the evening a spelling match was staged between the best spellers of the elementary grades and a group of representative business men. These men had not been forewarned, but had pledged themselves to carry out whatever they were called upon to do during the evening's entertainment. When the men were all spelled down, seventeen of the twenty-four pupils matched against them still remained standing.



"George and Martha" as they appeared in the colonial unit presented in connection with the demonstration of modern methods of teaching.

Are the Contents of Textbooks Dictated by Propagandists?

Publishers have generally resisted the efforts of pressure groups but they cannot stand against sectional prejudices and propaganda that has been written into the statutes

By GUY MONTROSE WHIPPLE, Secretary, National Society for the Study of Education

THE notions that prevail among some teachers and school administrators as to who determines the contents of textbooks are somewhat naïve. Some persons believe that almost anyone who has a new idea about teaching, or who has written a short story or who has made a trip to Europe may proceed forthwith, with no guide other than his own notions, to write a successful speller or a valuable survey of English literature or an influential geography.

Other persons believe that the presidents, managers, directors and editors of textbook publishing firms are the persons who decide what school children shall or shall not read and study. I have heard schoolmen assert that textbook publishers are forever trying to thrust down the throats of superintendents and teachers books that these superintendents and teachers do not want.

What Constitutes Propaganda?

Both these notions are absurd. The simple fact is that textbooks are written and published in order to be sold. Consequently the subject matter and the method by which it is treated must be such that school people will approve and buy. In other words, successful textbooks reflect the mores, the cultural level, the academic demands and even the pedagogic fashions of the times. These cultural items, demands and fashions are embodied most clearly in the courses of study current at any given period, and hence the contents of textbooks and the style in which these are set forth are obviously and openly dictated for both authors and publishers by the numerous state, county, and city courses of study. In other words, the contents and the style of textbooks are influenced and even dictated primarily by factors not intrinsic to the subject matter or the author's conception of it, and many of the extrinsic factors exert their influence by becoming reflected in the prevailing demands of the schools themselves.

In thus reflecting the mores, the cultural level and the academic demands and fashions of the times, textbooks may be said to serve in a sense as propaganda. The tendency is plainly toward accepting and thus toward indoctrinating the pupil with the acceptance of things as they are. If the capitalistic system is generally taken for granted, textbooks take it for granted; if a deistic religion is generally taken for granted, no agnostic material will be found in schoolbooks; if the struggles of the colonists against Great Britain are regarded as uniformly justifiable, the patriots must be portrayed as heroic figures.

But such features are not commonly regarded as instances of propaganda in textbooks. Most persons, when they inveigh against propaganda in schoolbooks, are thinking of an unfair attempt to make the reader believe something that is not true —an attempt, by subtle devices or by distortion of facts, to spread belief in false doctrines. Such attempts constitute propaganda of an unethical and even vicious character. However, not all propaganda need be vicious or even unethical. Propagandism may mean merely an attempt to get a special hearing, to set forth one point of view to the exclusion of other incompatible points of view.

Matters Generally Avoided in School Texts

It is with propaganda in these two senses that we are here concerned. My illustrations of its operation are provided by officials in seven well known educational publishing houses. There is no intent to imply that every instance of propaganda here cited is unworthy in purpose or unethical in method. The reader is competent to form his own judgment in that respect.

In texts designed for college use, especially for advanced students, the author commonly does not hesitate to express his own ideas even if his views on controversial matters are not the popular views. With high school texts and more especially with

elementary school texts, the situation is otherwise. Controversial issues are usually avoided as a matter of expediency. Prejudices have to be recognized if sales are not to be impaired by opposition from some influential group of prospective users. This situation may be thought of as a sort of negative aspect of propagandism. Certain matters are to be avoided; certain attitudes or beliefs are not to be antagonized. By way of illustration, I quote from a "Guide to Authors" prepared by the editor of the elementary school texts of a well known publishing house.

Examples of Potential Irritation

"The following are typical sources and examples of potential irritation that the author should avoid as a mere matter of expediency: (1) religious prejudices—reference to sects or beliefs, praise or dispraise of religious leaders, stressing evolution as an established fact; (2) political prejudices—national, state or local; (3) racial prejudices—offensive comparisons of races, disparagement of any race, raising the Negro question; (4) sectional prejudices—undue praise or dispraise of one section, needless reference to earthquakes, hurricanes or drouths in any specified region; (5) socio-economic prejudices—approval of socialism, taking sides on prohibition, failure to present the point of view of labor as well as that of capital; (6) esthetic prejudices—too great freedom in discussing sex or such matters as outhouses, head lice, and (7) miscellaneous prejudices—the use of nicknames, and epithets.

"The publisher realizes that topics like the foregoing must be treated freely in certain types of books; nevertheless, it is not commonly wise to introduce into school texts any material that may give offense and incur needless hostility."

Let us consider now the positive forms of propaganda. "The classic example," writes an editor, "is, of course, the success of the temperance and prohibition societies in writing into state laws all over the country the requirement that a certain fraction of the total number of pages in physiology or hygiene books be devoted to the harmful effects of alcohol and narcotics." The editor uses the term "classic," I suspect, because the influence of temperance organizations upon courses of study and contents of textbooks has been powerful and continuous, and because that has in turn doubtless influenced thousands of graduates of schools to support the Eighteenth Amendment and the Volstead Act.

In the case of temperance legislation, no textbook has ever been published that strictly meets the more extreme legal requirements. Witness, for example, the statement in the New York City syllabus that textbooks for fourth-year, intermediate and grammar grade pupils "shall give at least one-fifth their space . . . to the nature and effects of alcoholic drinks and other narcotics." Such a requirement would compel authors to prepare, teachers to present and pupils to assimilate for several years in succession something like forty-five pages a year dealing with the evils of alcohol and tobacco, and that, as one author remarked, might be calculated, were it fulfilled, to drive any pupil to drink!

As to the contents of textbooks themselves, this particular form of propaganda has been equally ambitious, active and influential. Publishers of textbooks in this field assure me that in certain states and in many local communities it is virtually impossible to sell a health or hygiene textbook that has not been scrutinized word by word and officially endorsed by the Scientific Temperance Instruction Department of the World and the Woman's Christian Temperance Union at its headquarters at Boston. Apparently it would be suicidal for authors and publishers not to make the verbal changes that are "suggested" by this organization.

These statements are not made with intent to criticize the aims or even the methods of temperance and prohibition societies. There is no attempt at secrecy in the propaganda of the Scientific Temperance Instruction Department. Nevertheless, it is doubtful whether school people or parents of school children are aware of the extent to which temperance instruction is thus dictated from without the schools.

The Optometrists File a Protest

Finally, attention may be invited to the perplexing situation that would be created for authors and publishers of texts in health, hygiene and physiology if all and sundry associations opposed to the Eighteenth Amendment were to band together to dictate the insertion into school textbooks of their own interpretation of the facts and meanings attached to this controversial issue.

Several publishers report that state associations of optometrists have exerted pressure to have modified certain statements in hygiene books that could be construed as advocating resort to oculists rather than to optometrists for examination of vision. This pressure has been exerted in a somewhat peremptory fashion, usually by way of attorneys who protest to the textbook commission of the state in which the optometrists are organized and licensed to examine eyes and fit glasses. These attorneys secure from the commission an order directing the publishers of textbooks adopted by the commission to remove any "unfair" favoring of oculists over optometrists. Authors and pub-

lishers have met this demand by replacing "should visit the oculist" with "should visit an oculist or an optometrist" or "should visit an eye specialist." Refusal to make such a change apparently would mean that legal steps would be undertaken in some states to have the offending textbook removed from the list of official adoptions.

In some states, especially where state adoption prevails, revision committees may dictate changes in texts. The requests of such committees have been of a minor nature and their attitude in the main has been reasonable.

Evolution and Fundamentalists

The celebrated Scopes trial brought forcibly to the attention of all school men the fact that Tennessee prohibited the teaching of the theory of evolution. The attitude, if not the legal requirements, in certain other states compels authors of biology texts to choose their phrases with care, although, in most of these states, I am told, books that simply explain the theory of evolution are in widespread use without criticism.

Religious and sectarian prejudices may break out in unexpected ways. Not many years ago in a certain Midwestern area schoolbooks of every sort were scanned to make certain that they were utterly free from the "taint of Rome." In one innocent supplementary reader for younger pupils was found the old English rhyme that everyone knows, "The House That Jack Built." To the astonishment of the editor of this reader, it was seriously argued that the line, "This is the priest all shaven and shorn," would invalidate the entire book for sale in this area. It was finally decided to make a plate correction to read, "This is the pastor all shaven and shorn." The same publisher elsewhere prints "The House That Jack Built" in the standard, original version, but is prepared to offer the "pastor" when the "priest" is unwelcome!

Another type of fundamentalist influence is reported by a publisher who says: "At various times the Seventh Day Adventists have objected to the appearance in scientific books of references to past geologic epochs, apparently being wedded to the idea of creation in 4,004 B.C. or thereabouts."

Two citations from publishers will suffice to show that national, racial and sectional prejudices do undoubtedly affect the contents of textbooks, especially of histories. Both citations, however, indicate that these prejudices may become less intense with the passage of time, and may even be reversed in direction if propagandists outside the field of education shift the attitude of the general public.

"During the war," says the first publisher, "opinion—not of the minority in this case—reached such a feverish pitch that most textbook publishers had to delete from German readers, from histories and from many other books, references that showed the German rulers, their families, German industry or the German people themselves in any favorable light whatever.

"Now a diametrically opposite pressure is occasionally exerted, especially in certain cities in the Middle West. There it is often desired to suppress certain well authenticated statements in history textbooks as tending to prolong the bitterness against the Germans.

"Formerly histories for elementary or high schools, written and published in the North, would not be used in the South. Now there are a number of histories by Northern authors widely used in the South."

"For several years after the war," says the second publisher, "it was impossible for any schoolbook publisher to tell the truth about Germany or to mention socialism—to say nothing of communism—without having the hundred-percenters on his neck. Furthermore, a certain large corporation dominated one of the Western state adoptions to such an extent as to prevent the adoption of a history text that was deemed too fair to labor.

"The interesting thing about this whole business is the almost complete reversal on such a subject as Russia. Whereas as recently as six or seven years ago any publisher handled Russia with gloves and felt called upon to show up fully the unfavorable side of the Soviet régime, the Russophiles have dominated American education of late to such an extent that many teachers turn first of all to the section on Russia in a history or a geography, and if that is found to be sympathetic, are inclined to approve the text.

Sectional Prejudice Being Overcome

"In a similar way the sectional prejudices between the South and the North are rapidly breaking down in the matter of what they are told in history textbooks. In other words, what were termed 'Southern histories' do not have the plain sailing they used to have in the Southern states."

A third publisher informs us that he has just published and proposes to bring directly to the attention of every Northern teacher of history a new text written by two gentlemen living south of the Mason and Dixon's line. His argument is: "If the South can properly be asked to give careful consideration to a history written in the North, why can't the North properly be asked to give careful consideration to a history written in the South? We have been gratified at the reception given this book in the North."

That the fight against sectional prejudice is not

entirely won, however, may be attested by the experience of a firm that offered for adoption in a certain state an excellent text on English composition for use in high schools. This text was just on the point of being adopted when someone chanced to note in it a model letter to a business firm. The model letter—a bona fide letter—had been written to a firm that manufactured raincoats. The writer said that he wanted to express his admiration for the excellence of their raincoats; he had worn one all through the recent terrific hurricane and it had come out as good as ever. This otherwise model letter unfortunately mentioned the state where the terrific hurricane occurred and the sequel was that that particular English composition text was never adopted.

Does the Power Trust Control School Textbooks?

In the popular mind such instances of propaganda as have been related are either unknown or ignored. It is the alleged control of textbooks by industrialists and especially by the "power trust" that has occasioned congressional agitation, federal investigation and educational organization.

Now that much of the smoke of battle has blown away, it seems possible to raise and answer a few straightforward questions. For example, Have the privately owned utilities set up committees to examine textbooks and to list them as fair or unfair, from the point of view of the utilities? The answer is obviously yes. Have the utilities sought to discourage the use of the allegedly unfair texts by appealing to school officials? The answer again is yes, and it may be added that in some quarters the effort has met with success. Have the utilities sought to bring to the attention of authors and publishers facts or interpretations of facts favorable to the private ownership point of view? Again the answer is yes.

Is there anything reprehensible, in principle, in this examination of textbooks, this listing of some of them as unfair, this seeking to discourage the use of these unfair texts and this setting before authors and publishers material more favorable to the power interests? Surely the answer must be no. In principle, this is exactly what the American Federation of Labor and other reputable organizations do without arousing criticism. The utilities groups, however, appear to have done it very poorly and in some cases unethically, and in general to have been uncommonly stupid in their technique.

That brings us to a final question: Did the utilities succeed in persuading authors and publishers unfairly and unwisely to alter statements in textbooks? In other words, is there any evidence that the power trust controls school and college textbooks? The answer is, I am sure, no. From one publishing company I quote a paragraph that appears to be typical of what went on between the power trust and the textbook producers:

"A great deal has been made of the attempts of some of the power companies to foist upon authors and publishers their own views of certain economic principles and their own statements of certain economic conditions. We never made a public statement concerning it, but the facts are that in a perfectly proper manner an official of one of the power companies called attention to what he regarded as errors in one of our books. We asked that his statements be made in writing. They were so made and transmitted to our author. Our author rejected most of the suggestions made, but he did find a few places in which his treatment was not quite correct or not quite adequate. We thanked the critic and told him that his criticisms would always be welcome. I believe that he made a somewhat boastful report of his efforts with our firm and that his report with its erroneous implications became more or less public. Nevertheless, we are, like other publishers, grateful to anyone who will call attention to errors in our books."

A case well known to bookmen illustrates how badly off the author and publisher would be if they did yield to pressure from industrialists and got caught between millstones of powerful business rivals. The publisher tells the story:

"Did you ever hear of our famous row with the Ice Man's Association? They actually got a state superintendent to order that a sentence in one of our books should be covered with a pasted slip of paper in every one of these books sold in his state because our author in that sentence ventured to speak favorably of mechanical refrigeration, which must, the ice men said, be power company propaganda. They kept it up in a dozen states. It was their national secretariat earning its pay."

Do We Need a "Save Our Schools Committee"?

For a time the vigorous activities of the Federal Trade Commission seemed likely to discourage almost completely that wholesome and valuable discussion that should be had in the public schools of the issue of the public utilities, along with the discussion of many other controversial economic, social and political issues. Schools seem now to need saving, if at all, from lack of controversial material. It is refreshing, accordingly, to note the friendly reception that school men have accorded some recent texts that try to present impartially facts and interpretations supporting both sides of these issues and to bring pupils into closer contact with real problems, at the same time avoiding the charge of propagandism.

Rural School Teacher Must Be Her Own Health Officer

Communicable diseases belong to three groups. The teacher must know the signs, watch her pupils closely and exclude immediately the child who develops suspicious symptoms

By W. W. BAUER, M.D.
Director, Bureau of Health and Public Instruction, American Medical Association, Chicago

HEALTH factors in the environment of the rural school child are physical surroundings, liability to epidemic disease and health education. Each of these factors is closely related to the other two. Physical surroundings under which the child must be taught are of the first importance for they constitute the power of example, the "what you are" which speaks so loudly that it obscures the "what you say" of the teacher unless both contribute consistently to the fundamental objective, better health.

Epidemics are still with us, despite increased knowledge of how communicable diseases are caused and how they are spread and improved technique in dealing with them. The explanation for the persistence of unfavorable conditions is found in the fact that a wide gap exists between knowledge and performance. Calvin Coolidge, while president of the United States, told the American Medical Association, in convention at Washington, "We do not do as well as we know." In the rural school, as every rural teacher realizes, it is particularly difficult to do as well as we know.

Cities have long since been forced, if they would continue to grow or even to exist in all their artificiality, to care for the health of their people. They have met the challenge of disease and death, not so much because they have more vision or more concern for the health of their citizens than have the rural communities, but because they had to fight or die. Population groups, like bacterial colonies, as Haven Emerson points out, tend to die out at the center of the mass, poisoned by their own life processes. Rural communities largely escape this tendency. They have escaped it more completely in the past than they may expect to do in the future, for the growth of communication and transportation has transformed the countryside as by a miracle.

Communicable diseases constitute a somewhat different problem in rural areas than they do

in cities. Modes of transmission are the same in principle, although the details vary. The country is favored by the fact that, on the whole, there are fewer large groups of people. This is of the utmost importance because contagious diseases are spread to a great extent by persons, not by things. Crowded subways, surface and elevated cars in the great cities have no counterpart in the rural areas. The moving picture theater is a feature of both city and rural region, but country theaters are inclined to be smaller and are not attended so often as are those in the cities. Rural schools are smaller than city schools and, in general, large assemblages of people are a feature of the city scene rather than of the countryside. These are the advantages of the rural school, from the standpoint of epidemic control.

How Contagion Is Spread

Over against the favorable factors let us set the disadvantages of the rural community. Isolation retards the development of natural immunity as shown by war experience. Rural recruits fell victims to epidemic diseases to which the city dwelling soldiers, having been more intimately exposed to crowds, were immune. Health organization is much less likely to be functioning in rural areas. There are still relatively few county nurses, especially in the sparsely populated districts. County health units remain the exception rather than the rule. State health departments, nominally charged with responsibility for rural health, are as a rule too distant and too scantily financed to do much more than advise through publications and occasional brief visits by a field worker.

The country doctor, who used to be health officer, family adviser, school physician, sanitary expert and psychologist all in one, is disappearing, unappreciated until too late. The teacher in the rural school—and by this is meant the one-room school or the small, remote district school—must face virtually alone the problems of communicable disease control as well as of education. It is my purpose to outline some helpful suggestions by which she may successfully minimize epidemics in the school.

The first essential is that she shall understand the spread of communicable diseases in order that she may proceed with her eyes open. It is persons, not inanimate objects, with whom she should be concerned. The importance of cleanliness in the environment must be stressed. She must insist on this, but with a clear understanding that insofar as communicable diseases are concerned, desks, seats, floors and window sills are less important than are the living carriers of disease.

Communicable diseases fall into three principal groups so far as the rural school teacher is concerned. The first of these involves transmission by the breath. It includes such common plagues of childhood as measles, mumps, whooping cough, scarlet fever, German measles, diphtheria, ordinary colds and sore throats and the less common but more deadly meningitis, infantile paralysis and sleeping sickness. These are spread by secretions of the nose and throat, passed from person to person, especially among children, by such methods as sharing of foods, putting fingers, pencils and other objects in the mouth and other means which will be obvious to the experienced teacher. Contact is commonly direct. Soiled articles lose infectiousness rather rapidly. These infections are exceedingly difficult to control because children naturally have no nice sense of personal fastidiousness.

The second channel of transmission is the digestive tract. Typhoid fever is the type disease of this group. In the rural areas typhoid fever is still a live issue, although it is more or less defunct where modern sanitary conveniences are in use in conjunction with filtration of the water supply, pasteurization of milk and inspection of food materials and finished food products. This disease demonstrates the importance of environment. But even so, the patient remains the source of infection. Direct contact is not necessary, for typhoid organisms can live in water, milk or foodstuffs and are thus carried from one victim to another.

The third type of transmission has to do with the skin. This is a minor group of diseases but they are unsightly and annoying from the standpoint of school efficiency. Ringworm, itch or scabies, impetigo contagiosa and infestation with lice are among the most common infections in this group.

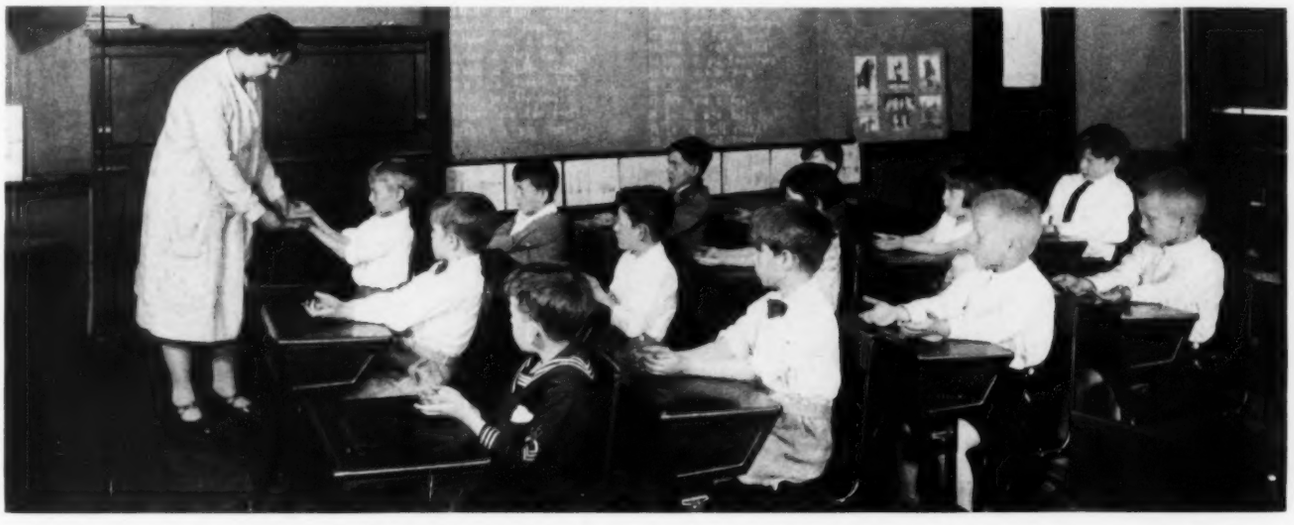
"Have Them and Get Them Over With"

Each of the three main groups must be attacked in its own way but all of them require certain fundamental knowledge. The wise teacher, working in an isolated community, will look about her before an emergency arises, and marshal in her mind those forces that the school district affords for the control of disease. Then she will get acquainted with them before she has to ask them for cooperation. Her first and best ally is the doctor, if there is one in the community. He will be able and glad to inform her about many matters, and his counsel will have the value of experience in dealing with that particular community.

The teacher should learn what aid she may expect from constituted health agencies, such as the county nurse or county health unit, or from the state board of health. She must learn the rules and regulations governing quarantine in the locality. Thus she will gain a clear understanding of what she can do, with such help as is available,

to guard her school against outbreaks of contagious disease.

Considering first the diseases spread through the respiratory system, the teacher must realize that in all probability the community regards them as necessary evils. "Have them and get them over with" is in all likelihood the motto of the village grandmothers. She must upset that idea, but in so doing she must not upset the community too much or she will be stopped before she starts on the road to progress. Her best weapon here is education. She undoubtedly will have theoretical power to take certain precautions but these will be nullified without community support. She had better, therefore, proceed with circumspection.



Soiled hands are disease spreaders. The teacher can help correct this by inspecting the pupils' hands periodically.

The respiratory diseases are most contagious just at the time of onset and it is then that they are hardest to recognize. Even experienced physicians are sometimes compelled to wait for the progress of events to unmask an obscure infection. That would seem to be an insurmountable obstacle to control. Not so. It simply lends emphasis to what should be recognized as the first principle in the control of these diseases, namely, isolation upon suspicion with diagnosis deferred until later. In other words, quarantine on suspicion, or, in the case of the school, exclude upon suspicion.

A community not accustomed to such a procedure is not going to tolerate it without a struggle. Having been persuaded or gently but firmly compelled to accept it, they will later point with pride to their fine record of freedom from epidemics, taking the credit unto themselves. Perhaps they have driven one teacher or health officer out of the community for starting the revolution, and the successor will get the glory.

A new difficulty now presents itself. How can a teacher, remote from medical consultation, recognize signs of contagious disease? Shall she be compelled to take a course in medicine? By no means. She needs only to be able to recognize certain signs that any observing person can see. She need not know their significance beyond the fact that their presence makes the unfortunate victim a temporarily undesirable pupil. These signs are fever, cough, skin rash, sore throat, nausea or vomiting, undue listlessness or irritability, diarrhea or pain. A child with any of these symptoms is better not in school. He learns little or nothing, interferes with school routine and delays his own recovery by being kept in the classroom. He should be firmly but tactfully sent home. Perhaps his condition turns out not to be contagious. Even so, it is well to get him out of the schoolroom and into his own home. He should not be readmitted without a certificate from the doctor stating that he is not suffering from a communicable disease. This is a matter of law in every state and the printed regulations should be in the possession of every teacher to support her in her policy. Copies can be had from the state board of health on request.

Early exclusion of children with suspicious symptoms is a paying proposition. Simple arithmetic will suffice to prove that many short exclusions can be made without loss of school time equal to two or three long quarantines consequent upon temporizing with a case of communicable disease while the diagnosis remains undecided. Moreover, short absences are easily made up from the scholastic standpoint, while long quarantines often mean failure. Finally, of course, it must always be remembered that every case of communicable disease is a potential death.

The typhoid fever problem cannot be solved by the teacher alone. This is a question of excreta

disposal and water supply that is up to the school board. The board may profit greatly from the knowledge and leadership of a wise teacher. She may be able to induce them to install more fit and sanitary privies or even a modernized system of toilets and she may stimulate the acquisition of a better well for the school grounds.

Failing in that and without waiting for typhoid fever to appear, she can initiate some public health measures of her own. She can get water samples from the school well and see that they get to the state laboratory for analysis. If the well is unsafe, she can see that the water is boiled before drinking and that the subject of safe water for the school children is never allowed to rest in community club and parent-teacher meetings and upon other appropriate occasions. Persistence, of course, must be mixed with liberal dilutions of tact. Then if typhoid fever does creep into the community through other channels, her conscience will be clear and her school will undoubtedly get the much needed well.

Medical Measures to Be Advocated

Skin infections are relatively unimportant so far as their effect on health is concerned, except in rare and badly neglected instances. They do constitute, however, a problem of some magnitude for the teacher. Impetigo and itch are highly contagious and will infect other children if their victims are not promptly discovered and isolated. Children with ringworm are usually permitted to attend school if the skin is under treatment and the affected parts are covered with dressings. Lice, of course, must positively not be tolerated. The teacher will have relatively little difficulty in excluding children with these conditions for skin diseases are sufficiently unsightly to be repulsive and public opinion will be with the teacher.

In the rural school three conditions call for preventive measures known as immunization. Without attempting to enter into a discussion of immunity in this place, it seems pertinent to point out that smallpox, diphtheria and typhoid fever are preventable by medical measures taken before the appearance of the disease in the community. In the case of smallpox and typhoid fever, the preventive measure is vaccination. Vaccination against smallpox is effective for at least five years in most persons. Immunity after vaccination against typhoid fever lasts for a maximum of three years. Diphtheria is preventable for an extended period, probably as long as fifteen years, by the administration of toxin antitoxin or toxoid. These are medical measures. They can and should, however, be advocated, and their application brought about, through the teacher's initiative if necessary, especially in localities where organized health service is remote. The community physicians will be able and willing to advise in this connection, or if there is no local doctor inquiries can be addressed to the secretary of the county medical society.

Whatever breaks in the way of epidemics, the school should be kept open. The board will probably want to close it. The teacher should try to show them that closing schools does not control communicable disease; it scatters the seeds more widely. What happens when the school is open? Children can be watched carefully day by day, excluded early and advised to have medical attention. Cases occurring in spite of precautions are more promptly recognized. But when the school is closed, the children, freed from attendance obligations, visit or play together without any supervision, cases occur without identification and the last state of that community is worse than the first.

In short, the rural school teacher in the smaller and more isolated school must in effect be her own health officer. This will not be easy nor will it always be pleasant, but if she does it well it will pay in better school work and a happier community. Whether or not her constitutents appreciate this, the teacher will have the satisfaction of having done a good job in a creditable manner, which is after all the most significant reward for the earnest professional worker. In order to keep epidemics out of her community, the teacher will have to exercise a great deal of patience, diplomacy, tact and salesmanship as cloaks for the no less important but less prepossessing qualities of persistence, determination and inflexible adherence to purpose.

Small Secondary Schools Have Administrative Problems

Through the development of pupil transportation among the smaller secondary schools at public expense, significant progress has been made in bringing improved secondary school opportunities to rural children. On the other hand, serious administrative and teaching problems appear in the smaller schools. One problem is the shortness of tenure and another the heavy teaching load in terms of the number of different subjects taught. It was found, according to the National Survey of Secondary Education, that many principals and teachers receive unreasonably low salaries.

Other findings reveal that the smaller secondary schools as a class are lacking in adequate space for athletic games and sports ordinarily carried on in high schools, and that these schools are inadequately provided with special rooms for other than instructional purposes.

New Law Creates Higher Standards for Teacher Preparation

The Washington state board of education now has authority to supervise the issuance of teachers' certificates. All certificates must be earned by study in institutions approved by the board

By FREDERICK E. BOLTON, Professor of Education, University of Washington

REGULATIONS adopted recently by the state board of education and the higher educational institutions will place the state of Washington on the vanguard in teacher preparation and certification in the United States. The 1933 legislature vested the state board of education with the authority "to supervise the issuance of normal diplomas and teachers' certificates, and to determine the types and kinds of certificates necessary for the several departments of the common schools."

Two General Types of Certificates

The board had been empowered since 1909 to determine teacher training curricula in the normal schools, the state university and the state college. The accrediting of all teacher training institutions outside the state and all private institutions within the state has likewise been a function of the state board for a quarter of a century.

Acting on the newly conferred authority, the state board of education at its June meeting accepted full responsibility for all certification of teachers. Provision was made to eliminate all certification by examination and all city certification. Since September 1, certificates are being issued by the superintendent of public instruction, acting for the state board of education or by the higher institutions of learning maintaining teacher training curricula and authorized by law to issue teachers' credentials. In reality these latter forms of credentials are issued by the superintendent of public instruction since the credentials are not valid unless countersigned by him.

Two general types of certificates are to be issued, (1) those valid for teaching in elementary schools and junior high schools and (2) those valid in high schools and junior high schools. On the basis of the source of issue the certificates are classified as follows:

By the superintendent of public instruction, for teaching in elementary and junior high schools: (1) temporary elementary certificates; (2) five-year elementary certificates, and (3) life elementary certificates.

For teaching in high and junior high schools: (1) temporary advanced certificates; (2) five-year advanced certificates, and (3) life advanced certificates. For specific positions or a limited time, special certificates may be issued.

By Washington higher institutions of learning, for teaching in elementary and junior high schools: (1) five-year normal diplomas of normal schools, and (2) life normal diplomas of normal schools.

For teaching in high and junior high schools: (1) five-year normal diplomas of state university and state college, and (2) life normal diplomas of state university and state college.

Temporary certificates may be issued only to teachers from accredited institutions outside of the state. Experience gained on the temporary certificate may not be used to meet experience requirements for a higher certificate.

State Board Sets Minimum Standards

The minimum requirement for securing the five-year elementary certificate is graduation from a three-year course in a Washington state normal school or an institution accredited by the state board of education from within or outside of the state. Graduates from four-year courses in normal schools at present will have only the same certification privileges.

The minimum standard set by the state board of education for securing the initial certificate to teach in the senior high schools and in junior high schools is graduation from a standard four-year college plus at least two quarters of graduate work. The University of Washington requires one quarter of study beyond the minimum standards set up by the board of education. That is, the university is on a five-year basis of training for initial high

school certification. An additional quarter is required for the life diploma issued by the university. The foregoing requirements must include a minimum of twenty-four quarter-hours of specified work in education courses.

All private normal schools or colleges within the state seeking certification privileges for their graduates must be duly inspected and accredited by the state board of education before such recognition is granted. All public and private institutions outside the state whose graduates seek certification in Washington must likewise be accredited in order to be recognized. This applies to the life certification as well as to the initial certification.

A Great Step Forward

It will be noted that no certificates are to be issued by examination. All must be earned through study in institutions of higher learning duly authorized to train teachers and whose programs of teacher training have been approved by the state board of education. This is a great step forward. Prior to 1915 no professional training whatsoever was required. All college graduates were eligible to teach in any public school in the state.

In addition to the foregoing basic types of certificates two additional certificates will be issued by the state board of education (1) an administrator's credential and (2) a library credential. Both of these types will be required on and after September 1, 1934.

An administrator's credential will be required of a principal of an accredited four-year high school. To acquire this credential the candidate must have earned a minimum of twelve quarter-hours of credit in professional courses related to secondary school organization and supervision. This must be in addition to the minimum requirements in education for the basic certification.

The superintendent of a district that contains an accredited high school and also an elementary school system must possess a superintendent's credential. To secure this he must have had a minimum of two years of successful experience in an elementary school and a minimum of two years of successful experience in an accredited high school. Two of the four years of such service must have been as a principal of either an accredited high school or an elementary school. In place of the experience in an elementary school there may be substituted twenty-four quarter-hours of credit in professional courses relating to elementary school work. At least one-third of this must be specifically related to elementary organization, administration and supervision, including elementary methods, technique and research. Similarly there may be substituted for the high school experience twelve quarter-hours of credit in professional courses related to secondary school organization, administration and supervision. These twelve credits must be in addition to the credits required for the basic certification. Professional credits earned through institutional study may be substituted for only one of the types of actual experience but not for both.

The credential for a teacher-librarian in accredited high schools may be earned by persons who already possess an advanced certificate entitling them to teach in accredited high schools, provided they comply with other specific requirements.

The state board of education requires a minimum of twenty-four quarter-credits—sixteen semester hours—in education courses of all college graduates who secure the initial credential for senior high school teaching. The education credits are distributed among the following subjects, not less than two or more than four semester hours (three to six quarter-hours) in each of these subjects: educational psychology, general methods or principles of teaching, secondary education, special methods, additional elective hours to complete a total of sixteen semester hours (twenty-four quarter-hours). For the life credential eight additional elective semester hours are required, making the total for the permanent credential twenty-four semester hours.

After September 1, 1933, all applicants will be required to include a minimum of three semester hours (maximum six semester hours) of directed teaching or else file evidence of eight months of successful teaching.

Since 1928 the state board of education has been gradually requiring all private schools desiring to be accredited to have their teachers meet the same certification requirements as public school teachers. The regulations were not made retroactive.

Normal Schools to Grant Degrees

A bill was passed at the 1933 session of the legislature permitting normal schools to grant the degree of bachelor of arts in education to four-year graduates. The bill was signed by the governor and is now in effect. For many years the normal schools had maintained four-year courses but only a few students had remained through the four years. They usually preferred to spend the fourth year at a standard college in order to secure a degree. Undoubtedly many students will now remain at normal schools for the fourth year and the degree. Under the present certification regulations they will be eligible to teach in the elementary school and the junior high school. It will be interesting to note whether they will soon seek to be certificated for senior high school teaching also, as is the case in many other states.

Sound Finance Policy Makes Possible New Elementary School

Skillful school management has defeated the economic depression in Wyandotte, Mich., and has kept taxes low. All financial dealings are on a cash basis. The city's newest school was paid for in full upon completion

By FRED W. FROSTIC, Superintendent of Schools, Wyandotte, Mich.

THE Garfield Elementary School, Wyandotte, Mich., is an excellent example of functional planning on the basis of carefully determined educational and social needs of the district to be served.

Wyandotte, on the Detroit River, is the center of a great metropolitan industrial district southwest of Detroit. The raw materials of the large industries of the city are drawn from the thick deposits of salt which give rise to three hundred or more chemical products. The Michigan Alkali Company, the Pennsylvania Salt Company, and the J. B. Ford Company are three of the largest corporations operating several extensive plants in the city. The city's population is largely the industrial worker. While a large percentage of the people are of foreign birth or extraction, the district which this elementary school serves has a high percentage of older American stock.

The board of education of this community of 30,000 population has for many years been selected from the outstanding group of public minded civic leaders. These men occupy high administrative positions in the industrial and commercial life of the city. They are not aligned with political interests and have for many years effectively safeguarded the schools from such influences. For a period of fifteen years this board has been establishing and developing a series of policies in public education based upon a dynamic, democratic philosophy of education. Associated daily with efficient, progressive business organizations, these men understand

how to delegate executive power intelligently. Consequently they are able to devote their energies as a board to policy making and judging the efficiency of the execution and the operation of these policies.

The problem of adequately financing education is everywhere a dominant activity today. Due to the effective financial policies set up by the Wyandotte board, the district has been able to finance successfully the educational activities of the community for a number of years without bonding or without borrowing on short term notes. When the Garfield Elementary School was completed in December, 1932, it was paid for in cash. There is no annual interest or debt service charge to be met. This pay-as-you-go policy has been followed in the erection of all buildings during a period of years as well as in all other financial transactions of the school district. The wealth of the district is not great when computed on the basis of the number of children to be served. But it is of the productive type and during the economic stress of the past four years tax collections have never fallen below 70 per cent. The large industries as well as the small home owners are in agreement with the cash policy in educational expenditures. Educational service has been kept within the limits of cash available. Budgets are prepared two years in advance so that cash balances are available for all educational expenditures for a period of twelve months in advance at the beginning of the fiscal year. This type of financing has given reasonable security to teachers and other employees, assurance to executives in the execution of educational programs and policies and confidence to the school patron and taxpayer.

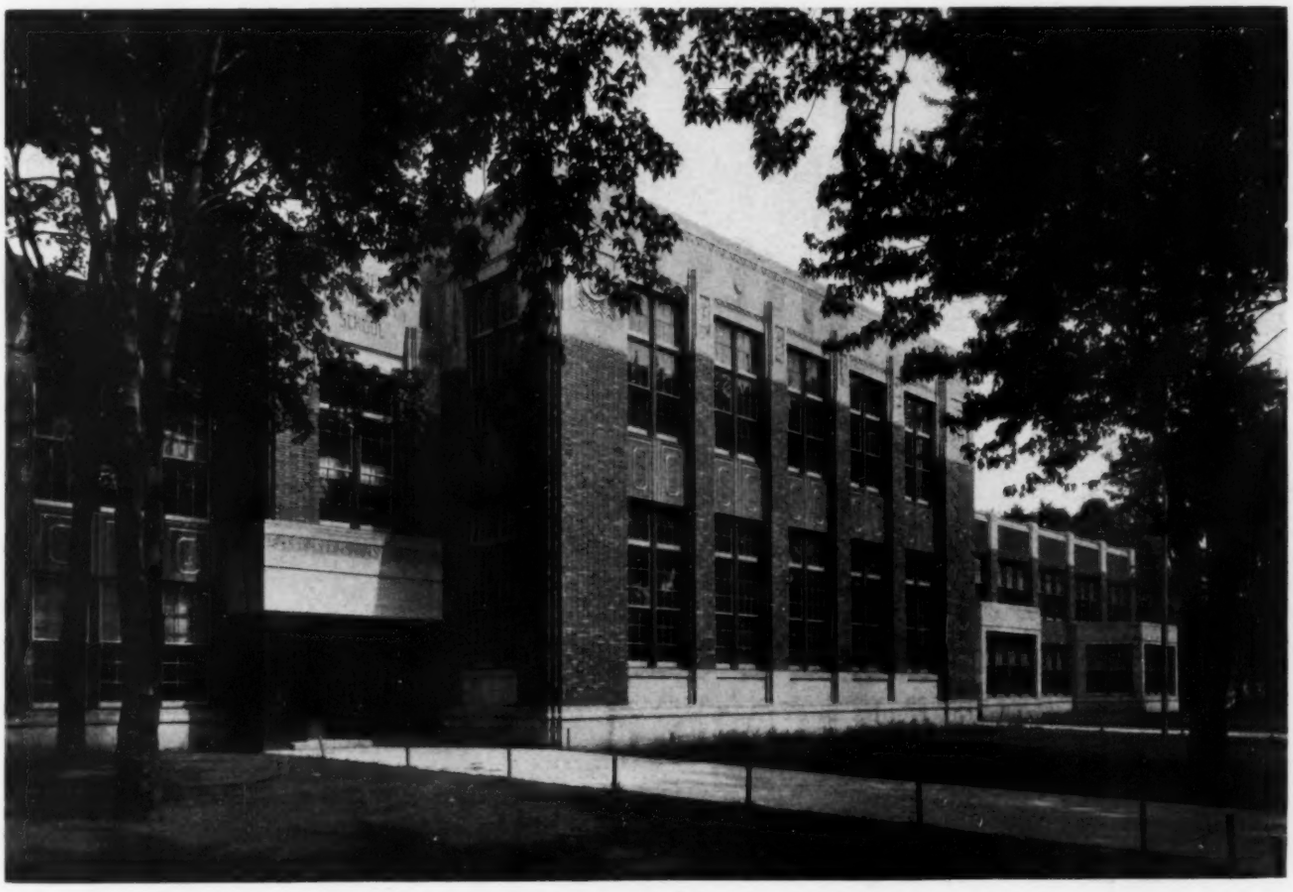
Building funds are commonly levied by direct taxes over a period of three years. In the case of the Garfield building this was distributed as follows: 1930, $130,000; 1931, $90,000, and 1932, $50,000, a total assessment of $270,000.

This amount meant that each taxpayer paid an average of $1.80 a year for three years on each $1,000 of valuation. On the basis of a long term bond this would have cost the taxpayer 45.9 cents a year on each $1,000 every year for twenty-five years. The building on such a bonding plan would have cost the taxpayer $11.475 on each $1,000 of property (sinking fund investments not considered) while on the pay-as-you-go policy the actual total cost was $5.40. In these figures the actual amount of the building fund raised was used. The building costs ran considerably under $270,000, which left a substantial balance in the fund for the next project.

The preliminary step in planning the new building was taken in 1930, the board of education requesting the school executive to conduct a technical educational survey of the building requirements of

The kindergarten contains a built-in sand box and a permanent aquarium. The wicker furniture gives a homelike touch.

the Garfield district and to prepare an educational design on the basis of these requirements. This survey was made under the direction of the board's executive officer and submitted to the board with the prepared educational design, June 3, 1931. After the approval of the survey and the adoption of the educational design, an architect was selected by the board from a list of three, recommended by the executive. The architect was instructed to complete all plans and specifications on the basis of the educational design by March 15, 1932, so that the necessary final approvals by the board of education, the state department of public instruction and the city engineering department could be made, the contracts let and the building construction started by June 1, 1932.



The modern architecture of the building and the beautiful setting of trees make the new school a community asset.

The program was carried out as planned in the following sequence:

The Technical Survey. This included a description of the educational district to be served, its economic, industrial and social factors and their probable future development. Studies in population trends, school and city census data, nationalities, family size and grade distribution over a period of years were compiled. The existing school plant, its site, its location and present and possible future hazards were carefully studied. On the basis of this information and the educational policies of the board, the educational design was completed.

Educational Policies. Collection and consideration of the educational policies of the board of education is the basis of all educational designing. The board was committed to a democratic philosophy of education which recognized the necessity of training pupils for successful living in society through active participation in living situations. The policies required an activity type of program administered through a semidepartmentalized type of organization. These activities were believed to find adequate expression through participation in a program that would include auditorium, health, play, language, science, library, music, art, reading, exact science, writing and spelling. The class size in these groups is set nominally at forty-five pupils except in groups such as auditorium, health, music, play and library where the number of pupils may be ninety in necessary double sections.

General Requirements. The educational survey showed that the immediate needs of the district were accommodations for approximately 725 pupils requiring a twelve-section semidepartmentalized program, one special room and one kindergarten; that the ultimate needs of the district would re-

The music room and auditorium are separated by folding doors. They may be opened so as to make available one large room which can be used for community gatherings.

quire in the near future space accommodations for 1,040 pupils on a twenty-section semidepartmentalized program, one special room and two kindergartens, operating for twelve periods of thirty minutes each daily.

Space Requirements. On the basis of the above requirements and the standards of space adopted for the program of activities and the surveyed adult requirements of the community, the following room and space assignments were adopted: ten home rooms, 22 by 30 feet; one special room, 22 by 30 feet; two science rooms (one with bay), 22 by 30 feet; one conservatory, 15 by 19 feet; one music room, 20 by 40 feet; one auditorium, 40 by 40 feet; one library, 22 by 45 feet; two gymnasiums, 40 by 60 feet; one shower room, 15 by 40 feet; one general office, 15 by 22 feet; one teachers' room, 15 by 22 feet; one art room, 22 by 45 feet; two language rooms, 22 by 30 feet; one clinic (dental, medical and waiting room), 15 by 40 feet; two kindergartens (with bays), 22 by 30 feet; one kindergarten activity room, 15 by 22 feet; one kindergarten service room, 15 by 22 feet; one general activity room, 15 by 22 feet; four toilets, 15 by 22 feet; one kitchenette, 15 by 11 feet; one storage room, 15 by 11 feet, and two janitors' closets.

The mechanical space requirements of the building were as follows: machinery room, 40 by 69 feet; boiler room, 32 by 43 feet; coal storage, 27 by 32 feet; ash storage, 9 by 13 feet; engineers' toilet and shower, 8 by 8 feet; engineers' storeroom, 8 by 8 feet, and power meter and switch room, 8 by 11 feet.

Detailed Planning. After the determination of the space requirements the position of the various units was determined by studies on location and movement of pupils and administrative requirements. From these studies and in consideration of site limitations an I-shaped, two-story building was planned, with provision for expansion to double this size into an H-shaped building should unforeseen conditions arise. The educational design was expressed in a line drawing accompanied by a full description of details of types and qualities of materials to be used in construction. After adoption by the board of education and the selection of the architect, the educational design and line drawings with complete description were turned over to the architect with the following program of procedure for the completion of the work.

The Program of Procedure

Educational design adopted by the board of education.

Architect appointed by the board of education.

Educational design and notes for special specifications supplied the architect by the superintendent of schools.

Preparation of preliminary drawings by the architect. These should be done in pencil, and adjusted during the process by conference between

the architect and the superintendent. Two blue print copies should be supplied the superintendent when completed.

Examination and written approval of the preliminary drawings by the superintendent.

Architect to prepare elevation sketches. All drawings in pencil without color. To be submitted to superintendent for approval.

Approval of elevation sketches by the superintendent in writing.

Approval by the board of education of preliminary plans and elevation sketches.

Order by board of education to prepare working drawings and specifications.

Architect to prepare working drawings and specifications. Specifications should keep pace with preparation of the drawings. Frequent conferences should be held between the architect and the superintendent to expedite the preparation of the plans and specifications. Two sets should be supplied by the architect for approval.

Approval by the superintendent of the plans and specifications.

Approval by the board of education of the plans and specifications.

Approval by the state department of public instruction of the plans and specifications.

Approval by the city engineering department of the plans and specifications.

Advertising for bids.

Letting contract.

Supervision of construction by the architect and the board of education representative. All working drawings to be available when contract is let.

Flexibility and Efficient Layout Feature the Architectural Plan

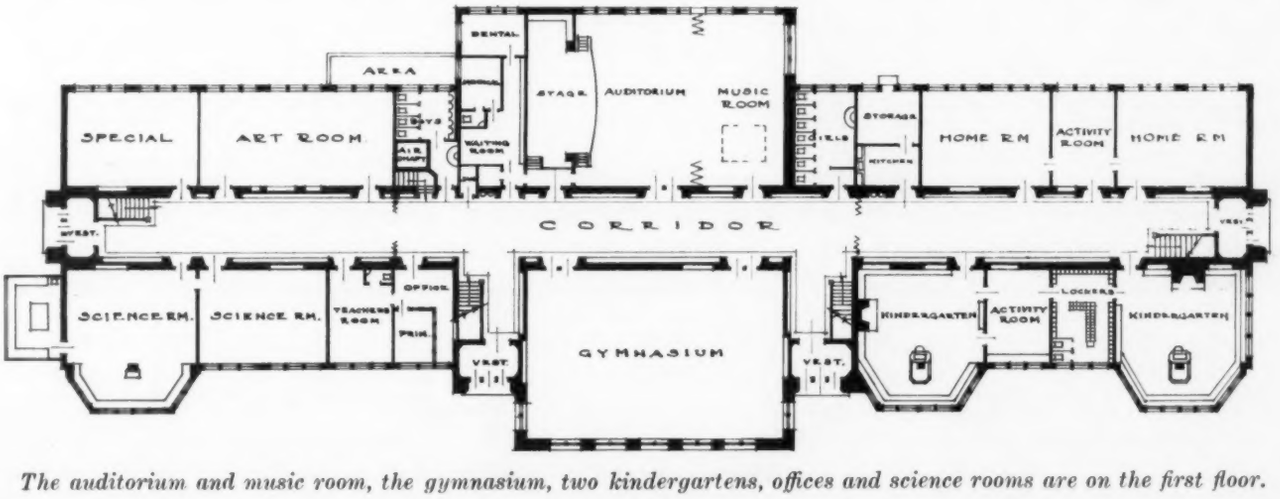
By B. C. WETZEL, Architect, Detroit

THE Garfield Elementary School, approximately 279 feet long by 104 feet deep, occupies a T-shaped site in the center of a residential district of the city. The site is 350 feet long by 320 feet deep. The building is I-shaped. It is two stories high and has a south orientation.

Both the exterior and the interior are designed in the modern style of architecture. The structure is faced with brick, stone, terra cotta and cast aluminum. The brick is in several shades, ranging from buff, through orange to reddish purple, and blends harmoniously with the Indiana limestone.

The spandrels between the first and second stories consist of heavy cast aluminum plates in appropriate modernistic design, the backgrounds of which are of a dull dark slate shade while the elevations of the design are natural aluminum. The window frames are finished to match the slate background and the sash are painted in aluminum. The heavy entrance pillars are blue black terra cotta surmounted by a mass of carved limestone. The building fronts on one of the city's most beautiful boulevards and presents an appearance of dignity in design and harmonious color combination.

The entire building is built with a concrete and steel frame, including concrete columns in both interior and exterior walls, concrete beams, concrete floors and roof and steel trusses. The use of the concrete frame contributes to rapid erection of the building and flexibility so that any future changes



The auditorium and music room, the gymnasium, two kindergartens, offices and science rooms are on the first floor.

Recessed drinking fountains keep the corridors free from congestion.

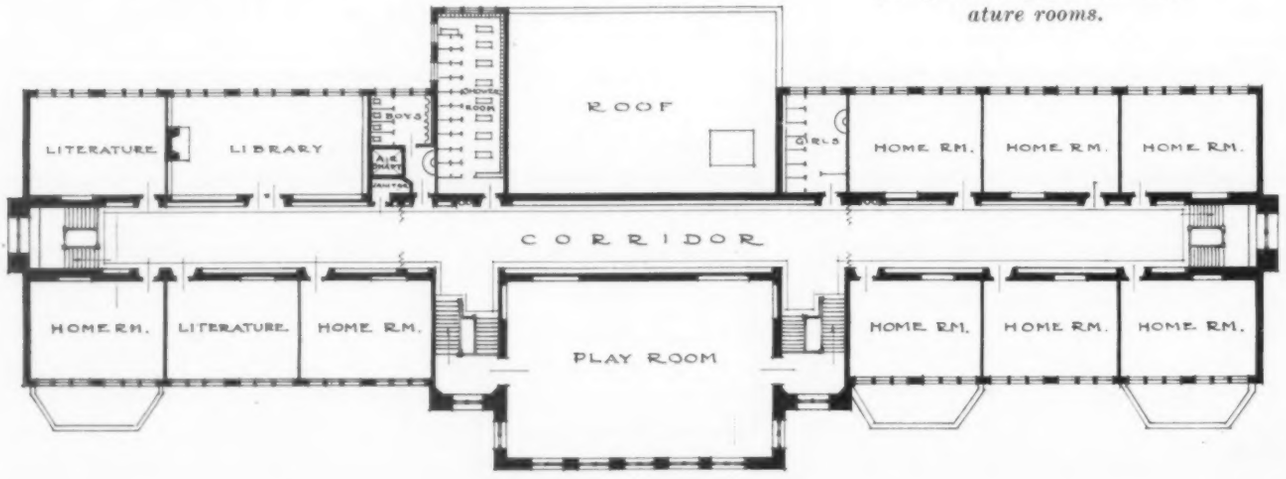
may be easily effected. The columns are spaced on a uniform spacing of 15-foot centers. Two such units constitute a standard classroom, three, an art room or library and one, an office, rest room or activity room. Flexibility is further provided by making all 15-foot units complete in lighting, heating and ventilation. End walls are removable since they contain no operating lines or cabinets. Rooms may therefore be increased to any number of units desired or decreased to one unit.

The capacity of the building is sufficient to meet the anticipated needs of the district, but there is ample provision for further expansion should this be necessary. A duplicate building may be erected on the opposite side of the site.

The first floors are reenforced concrete slabs suspended from the beam and column construction. They are excavated 2½ feet or more underneath. This prevents the settling and cracking of the floors, such as occur when concrete floors are built on filled in earth. This method also keeps the floors free from dampness and makes them suitable to receive linoleum finish. It also provides easy access to the operating lines under the floors.

The gymnasium floors are of selected 1½-inch face maple. The corridor floors, toilet room floors and service room floors are of terrazzo with brass dividing strips. All classrooms, offices and activ-

Teacher control is simplified by grouping the light switch, the thermostat, the telephone and the clock near the door. Below is a drawing of the second floor plan. There are eight home rooms on this floor, a library and two literature rooms.



ity rooms are floored with linoleum of appropriate color and design.

The drinking fountains in the corridors are of selected black porcelain recessed in a spacious niche of brilliant colored tile. The stairs are of the open type, with steel pan and terrazzo and semivitreous tread construction, combining the latest safety and fireproof features. The two-student lockers, the dimensions of which are 12 inches by 15 inches by 60 inches, are recessed in the breather walls of the corridors. The lockers and the dado spaces between the sections are lacquered in a light tan shade. The oak trim is finished in a light tan shade, and has a white filler. Spacious aluminum framed cases line the entrance corridors and permit the exhibition of school work. These cases are recessed.

The front elevation of the central portion of the building contains the two gymnasiums and the rear elevation contains the auditorium and music room. The health clinic is centrally located and contains complete medical and dental facilities. The art room, the two science rooms and the conservatory are in the west wing. The kindergartens are near the east entrance. The library is in a central position on the second floor.

The gymnasium showers are controlled by a central mixing valve, which may be regulated by the instructor. All the shower and toilet rooms are finished in gray marble. The plumbing is of a type designed especially to meet the needs of the elementary school.

The wide open stairway permits a rapid flow of traffic. The recessed display cases seen at the left, permit the exhibition of school work and help to create good will.

The heating plant is housed in a separate building and is connected with the main building by an underground tunnel. There are two low pressure steel heating boilers, which are fed by ram type stokers. The "split system" of heating is used. Direct radiation from recessed copper radiators provides heat, and tempered air is provided by the ventilating system. The radiation is metal covered and set flush with the wall line. This distributes the heat to better advantage and adds from six to eight inches of usable width to the room.

The lighting is controlled by three photo-electric cell units. These are regulated so that when the illumination in the dark portion of a classroom falls to nine foot candles the electric lights turn on automatically. If the illumination rises to ten foot candles the lights shut off automatically. The corridor lights are operated on a lower level of illumination.

The two gymnasiums, the auditorium and the music rooms are acoustically treated.

The volume of the building is 834,400 cubic feet. The cubic foot cost, including all fees and building costs, was 28.2 cents. The cost per pupil is $266.54. The structure was begun by wrecking an old building June 6, 1932, and was completed and occupied December 10, 1932.

Sound Pictures Prove Effective Teaching Aid

By WARD A. SHOEMAKER
Teachers College, Columbia University

Are sound pictures effective aids to classroom instruction? Or do they merely catch the eye and ear without being substantially helpful? V. C. Arnspiger, in his recent book "Measuring the Effectiveness of Sound Pictures as Teaching Aids," published by the Bureau of Publications, Teachers College, Columbia University, has reported on a carefully controlled experiment wherein several units of instruction in natural science and in music were taught to fifth and seventh grade pupils, both with and without the use of sound pictures.

The experimental group (taught with sound pictures) and the control group were matched according to intelligence, to locality and to ability of the teachers in charge. All teachers received units of instruction that served as courses of study for the experiment. The control teachers utilized whatever effective methods they wished, except sound pictures. All pupils (950 for natural science, 1,425 for music) were tested objectively before and after their instruction so that both growth and recall in knowledge could be determined.

In each of the eight units of instruction (butterflies, beetles, amphibians, growth of plants, string choir, wood wind choir, brass choir, percussion group) the learning of the experimental groups was superior to a statistically significant degree. The percentage of superiority ranged from 18 to 34.

The contribution of the sound pictures was specific, for the experimental group was not superior on those test items for which the films were not used.

Is Fiscal Independence for Schools Necessary?

Agreement of educators with proposed political and tax reforms is considered and the conclusion reached that financial independence is essential to good schools

By ARTHUR B. MOEHLMAN, Professor of School Administration and Supervision, University of Michigan

ACCENTUATED by the depression, there has been within the past three years an increasing amount of discussion concerning the need for a complete overhauling of our traditional patchwork system of taxation and for a serious restudy of administrative concepts and practices.

The subject is not new. Finance and tax specialists pointed out the inherent weaknesses before 1910. The twelfth conference of the National Tax Association offered a concrete program for the solution of the numerous problems arising from the continued use of a tax program designed for a long since outgrown rural culture. However popular thought on matters of taxation is extremely conservative. Some authorities contend that there is no visible connection between laboratory theories of taxation and the political practice of taxation.

Both Good and Poor Results Achieved

The program for tax reform within the past five years has included a study of existing governmental activities and agencies and increasing emphasis has been placed on administrative change as well as on taxation reform. Political scientists, particularly specialists in local and state government, have given growing attention to the idea of centralization of activity and increase in size of current local autonomous units. In this survey the traditional independent school district has received its reasonable share of attention. Movements within education and in the more specialized field of political science have all emphasized the need for change. Much good work in the field of education has already been accomplished in states that examined the problem in its entirety and planned accordingly. Many poor results have also been achieved by lack of recognition of the fundamental sociologic factors that are as vital to organized public activity as political theory.

The schools are confronted today by two sets of problems: (1) an antiquated and unfair system of taxation that throws an unequal burden on the owners of real property and (2) an inadequate and unsatisfactory system of local government, political and educational, evolved progressively by a piling up and duplicating process since the pioneer days. Running through both of these problems is the thread of fiscal independence, a privilege common to most of these numerous local units. The terminal result is a multiplicity of duplicating and overlapping tax units, admittedly an administrative extravagance from any point of view.

Study of the startling number of independent tax units and the successive tapping of the same sources of revenue for different public purposes has centered the thought of many specialists in political science and public finance particularly on the independent school district. Much has been said about the need for eliminating these various local authorities and centralizing all tax power in the hands of one central unit. In most of the plans considered public education becomes merely one of the several coordinate branches of local government. The outcome of this movement to date has been an increasing discussion on the part of educationists and specialists in government and finance outside of education.

Both Sides Agree on Two Points

At the outset both sides may agree on two phases of the problem. The educationist believes that the current system of small fiscally inadequate school districts has little to commend it. He also agrees that the present system of taxation is inadequate and stands whole-heartedly behind intelligent reform in this field. Differences do arise respecting the particular forms of local organization to replace the small district. The educationist naturally leans to the sociologic as well as the educationally desirable organization while the public finance and

political specialists generally proceed on the slender and inadequate base of purely statistical assumptions.

Vital differences of viewpoint arise in the third problem—fiscal independence. Looking at this question broadly, it is primarily a difference between the theory of general public income and the theory of segregated or earmarked public income; the concept of public education as an essential state function, as it has unanimously been declared to be by every superior court in the forty-eight states, and the concept of public education as merely a local activity.

Most Schools Free From Politics

The educationist considers the field of activity in which he is engaged as a long-span movement that requires nine to fifteen years for the completion of the institutional task of educating an individual. If this time factor is to be considered seriously, it must mean the promulgation and protection of a fiscal policy ensuring constancy and relative freedom during this period. It requires distinct separation from the political vagaries of partisan activity. It requires an executive organization of technicians and specialists to carry out the plan. It requires preparation and merit in the selection and direction of essential personnel. In providing for early educational organization our forbears probably had something of this need in mind, for the theory of freedom from political control, the maintenance by the people of close popular control and interest, supplemented by fiscal independence have combined to produce one of the most unusual school systems in the world—universal education under the direct control of the people.

The people, as a state, make their generalized educational policies and, as local quasi corporations or school districts, carry out these policies. As a result the public schools, with all of the defects inherent in any functioning public activity, have remained free on the whole from entangling political alliances. The tradition of service and the professional executive has been so well developed that within recent years the political scientists have been clamoring for the same type of executive organization in municipal and state activity, not always recognizing the pioneer work of the schools in developing the tradition and practice of essential professionalization of the complicated and technical practices of administrative government.

A brief glance at practice may be enlightening to the proponents of combination and amalgamation. Many political scientists say that education within a municipality should be treated as any other department of government—like health, fire and police protection. Under certain theoretical assumptions, such claim might have a certain degree of validity. Let us consider practice briefly.

At present there are many large cities where the mayor and council or the city commission controls the schools through determining either the appropriations or appointment of school board members. Wherever these conditions exist, with one big exception, the difference in the schools is apparent. I have visited dependent school districts in which the elementary children were forced to address campaign literature (under the guise of a practical life project in handwriting) for the dominant political organization prior to the primary elections. I have visited other dependent cities where the schools were closed on election day and the teachers forced to "rustle" voters to the polls. I have seen others where all civic fiscal needs were first determined and only the balance remaining accrued to the schools. The well known affiliations between Tammany and New York City schools need no elaboration.

The most recent and most flagrant situation is Chicago. Here, a board of education with some members appointed to office by the mayor, with scarcely two months' experience, adopted in secret caucus a so-called "economy" report that bids fair to push Chicago back a generation educationally. This report was prepared largely by the secretary of a pressure group composed of big civic names that represented selfish political and financial interests and a reactionary newspaper. It was adopted without consulting the superintendent and his staff of specialists. It never considered for a minute the fundamental and vital purpose of the schools, the interests of the state or of the children. A more grossly unintelligent example of political chicanery and betrayal of trust has never been known in the history of American public education.

Some Obvious Conclusions

Detroit is a brilliant example of a city where an unusual educational tradition and a dynamic public opinion on education have combined to produce, since 1917, an excellent system of schools. How long this situation can be maintained without fiscal independence is questionable.

Contrary to the theoretical considerations, the actual evidence indicates that the fiscally independent districts show no greater expense in providing educational opportunity than those units subject to one centralized budgetary body. In the case of Detroit, the fringe of smaller independent districts surrounding the actual city, including Wyandotte, Hamtramck and Grosse Pointe, have at the present time an excellent record of school support and stable finance without many of the difficulties into

which fiscal dependence has plunged the Detroit schools. There is no tangible evidence that mere centralization of fiscal control produces either greater economy or better schools than are found in fiscally independent districts. The mass of evidence is in the opposite direction. The largest amount of unionization of teachers occurs in those dependent districts where political machinations tend to overshadow professional considerations and professional personnel requires job protection.

Summarizing these factors, certain conclusions are obvious. There is great need for reorganization of local governmental and school administrative units. The smallest local administrative unit may logically be the county. There is also great need for a reduction in board of education members. At present there is one for every two teachers. There is also great need for the rebuilding of a tax system that will be suitable to an industrial rather than to an agrarian culture.

If local government is reorganized and a more logical tax structure provided, it is obvious that great savings in the expenditure of tax monies will be secured and the burden of supporting government more rationally balanced among all of the people. After the wealth has been equalized by counties or some similar local unit, it is also possible that adequate support for public education might be provided without increasing to any appreciable extent the burden of support.

The Risk Is Too Great

At that point the educationist stops. The continuation of public education as a state function, delegated locally only with respect to administration, must be considered as essential to the independent functioning of public education and the maintenance of the tradition of freedom from partisan political control. No discernible good and much real harm will result from the elimination of the principle of fiscal independence and the subsequent affiliation with the local professional political machines. The danger is too great to risk for the sake of a laboratory theory. There is no inherent value in centralized dependent organization. It possesses too many elements extremely dangerous to the commonwealth. The democratic way of life will be maintained only so far as the schools are kept close to the people and continued as one of their immediate concerns. Standardization and complete uniformity are not essential or even desirable. The problems of financial and district reorganization must not be confused with the essential principle of fiscal independence. The profession is in agreement with the first two and unalterably opposed to the elimination or construction of the third factor.

Schools May Help Unemployed Young People

Here are ways in which schools may assist in providing educational and recreational opportunities for boys and girls who are not now enrolled in the public schools and who are in need of assistance.

1. Offer day courses to those over sixteen years of age which will attract the unemployed back to school. In order to induce graduates and those who left school in the lower grades to return for training, there is need to supplement the traditional courses. These courses should be on an elective basis. Enrollment should be allowed at any time and discontinuance of attendance allowed at the pleasure of the pupil. Courses should have a large degree of recreational content and should permit pupils to explore their interests and develop their abilities under guidance.

Promote Leisure Time Activities

2. Make a follow-up of all drop-outs and recent graduates to find out what they are now doing and attract those who are idle back to school to a program which will interest them.

3. Interview all prospective graduates to encourage their return to school if they have no jobs to go to and are not going to college.

4. Offer recreational night school classes for those not enrolled in day school. These may include music appreciation, art appreciation, choral singing, languages, physical training, crafts and home making.

5. Offer programs of free entertainment in the auditorium and gymnasium, open to all, taking care that those who are unemployed receive a special invitation.

6. Adopt a policy favorable to promotion of leisure time activities and organization of groups for the pursuit of common recreational interests through the schools, relating all departments of instruction to this task.

A Cooperative Recreation Plan

7. Where financial limitations or public opinion do not permit so progressive a policy as stated above, it is recommended that more leniency be exercised to nonprofit activity groups in granting the use of facilities and that the whole procedure of granting permission be facilitated and that such groups be not merely tolerated but extended a welcome.

8. Where an official community recreation commission exists in any community, work out in joint conference a cooperative plan for serving the community in recreation.

Sound Systems Lend a Helping Hand to the Educator

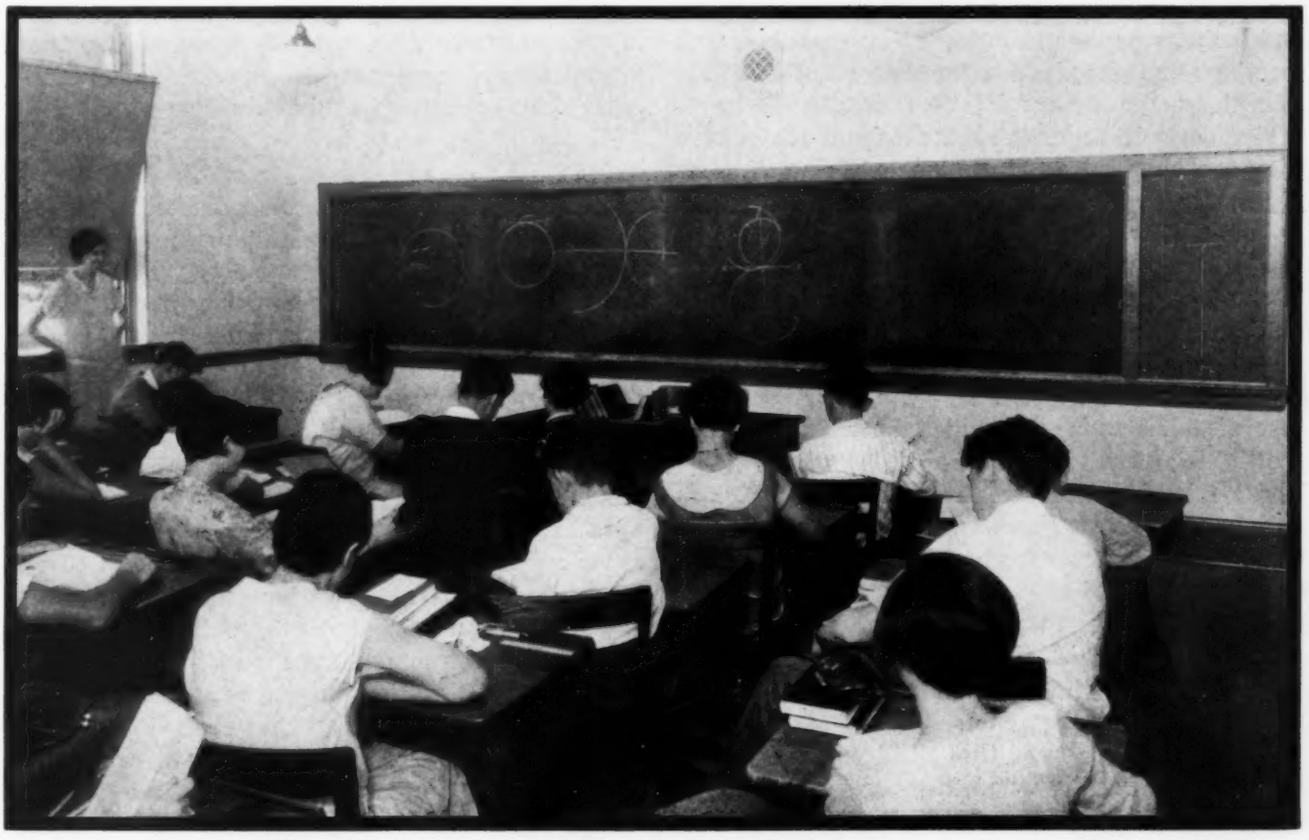
Three types of sound systems are adapted for school use. This article describes the various uses for these three systems and gives helpful pointers on the purchase and installation of the equipment

THE marked improvement that has been made in the design and effectiveness of sound reproducing apparatus in the past few years has attracted the interest of school executives to the extent that there is a definite trend toward making sound reproducing apparatus an integral unit in the modern school's equipment. Radio, public address and talking picture equipment, having been developed to a point where highly satisfactory results are assured at price ranges within the scope of the school budget, are today being given closer attention by educators than ever before.

There are three different types of sound systems suitable for school use: (1) a central radio system; (2) a public address system, and (3) a sound projection system. Experience has demonstrated that there is a definite need and distinct place in every school for each of these systems. They involve a low original cost, can be economically installed and are easy to operate.

In many schools radio plays an important part in the daily program. Radio has a vast number of uses generally. In the home its main purpose is to provide entertainment. In the school it is used primarily for educational purposes.

A central radio system for the school consists of a powerful central radio receiver, with a distribution network through loudspeakers in the various classrooms. A phonograph is sometimes provided for the reproduction of records. A central



Teaching in the Valley Stream High School, Long Island, N. Y., is facilitated by means of a central radio, with loudspeakers in each classroom.

radio system is of little use, of course, unless proper programs are available. The music appreciation hour conducted by Walter Damrosch, is an example of the desirable type of program. It is estimated that one year the classroom audience totaled 6,000,000 pupils. More than 75,000 teachers' manuals were distributed. Other similar programs are broadcast weekly and their number will increase as the demand grows. Lectures by well known educators are broadcast to schools all over the country.

Address Systems Are of Various Types

There are several types of public address systems suitable for the school. Perhaps the most useful type is one that is closely related to a central radio system. This involves the addition of an announcing microphone to the distribution system so that the principal or anyone else may address the entire student body without the necessity of the pupils gathering in the assembly hall. A Western school uses such a system for making all announcements to its pupils. "Teachers of English, history and vocational subjects avail themselves many times of this facility. It has proved to be a marvelous educational agency as well as an invaluable inspiration in various high school subjects," said the principal of this school.

Another type of public address system is used for the reenforcement of sound. Schools today have large gymnasiums, and many of them have large auditoriums or theaters where lectures, plays and meetings are often held before large audiences. It is no longer necessary for those in attendance to arrive early in order to secure a front seat where they can hear the program. Amplifying systems are easily and inexpensively installed. They reenforce the speaker's voice in such a way that he can be easily understood at all points in the room. Such a system consists of one or more microphones placed on the stage or platform. If a lecture is being given a microphone is placed directly in front of the speaker. In case of a stage presentation several microphones are distributed among the footlights and at various other places on the stage. These microphones feed through an amplifier to one or more loudspeakers, which are placed in such a manner that the sound will be well distributed to the entire audience. Such a system may be of a portable nature so that it can be moved from one room to another. A system of this type is often used on an athletic field or in a stadium for announcing purposes.

It is generally agreed that children assimilate a subject more readily when they can see either the object being studied or a picture of it. For this reason, the sound projection system is rapidly becoming a necessary adjunct to the school. Sound projection systems are available either as permanent or portable equipment. Standardized series have been designed to meet the requirements of all classrooms. Several film producing companies are now making educational films for school use. As the demand grows the number of such films will increase. Eventually pupils in all parts of the country will be able to see and hear famous lecturers, and at the same time view pictures of the subject that is being discussed. There are unlimited possibilities in this field.

Permanent sound projection systems may be installed in school theaters, auditoriums or gymnasiums. It is a simple matter to install the equipment. In selecting the equipment it is necessary to consider two kinds of apparatus: (1) sound reproducing equipment, and (2) motion picture projection equipment.

The following factors determine the satisfactoriness of a sound reproducing system: quality of performance, dependability, all A.C. operation, ease of installation, simplicity of operation, absence of batteries, absence of rotating or complicated machinery, low initial and upkeep costs, availability of manufacturers' engineers for installation supervision and service, reliability of the manufacturer and assurance of continued availability of replacement parts. Permanent sound reproducing systems generally consist of the following pieces of equipment: two 35 mm. soundhead attachments with proper drives; one amplifier; one loudspeaker; stage loudspeakers (depending on requirements); one set of tubes and spares.

Apparatus Required for a Projection System

There are many factors to consider in selecting motion picture projection equipment. One of the first things is to determine the proper size of sound screen required for the room according to standard methods. It is important to use a sound screen of a type approved by the sound equipment manufacturer. The type or model of light source used depends upon the dimensions of the projected image. Two types of light sources are available, namely, the ordinary electric lamp for small images at short projection throws, and the electric arc lamp for larger and more brilliant pictures. Direct current is required for arc lamps, making power conversion equipment, motor generators, converters or vacuum tube rectifiers necessary where only alternating current is available. Since the soundhead attachments must be of the proper type for attachment to the designated projection machines, it is necessary to designate the particular type and model to be used.

The apparatus generally required for a complete installation of projection equipment is as follows:

Two projection machines complete with magazines and pedestals, less motors and controls; two objective lenses of suitable focal length; two arc or lamphouses, complete; two rheostats or regulators, if required, and power conversion equipment, if required; one pair of changeover devices with foot switches; one film storage cabinet; one rewind table; one pair of film rewinders; one film splicing machine; ten reels; two bulbs or 100 sets of proper size carbons, and one approved sound screen and mounting frame.

Two Types of Portable Equipment Available

Portable sound projection equipment requires less projection apparatus. There are two types of portable sound equipment: (1) for use with 35 mm. (professional) film, and (2) for use with 16 mm. film.

The 35 mm. portable sound projection equipment is somewhat similar to the permanent equipment designed for small rooms. It consists of a combined projection and sound reproducing machine utilizing a lamphouse, all built into one compact unit in a carrying case and arranged for mounting on portable stand. The amplifier is similar to that used with the small theater permanent equipment. It is mounted in a carrying case. A portable loudspeaker, fitted in a carrying case, is also needed. All the units are interconnected through the use of cables and plugs. The equipment is designed for operation from the regular A.C. lighting circuit. The entire single projector 35 mm. portable sound projection equipment, including the cases, weighs only 190 pounds. The only additional projection apparatus required to complete a 35 mm. portable sound projection unit is a portable sound screen and an objective lens of proper focal length. Either one or two projection machines may be used.

The 16 mm. portable sound projection equipment is available in two types. The smaller type employs a 100-watt projection lamp for small images at short projection throws, while the larger type employs a 400-watt projection lamp for larger and more brilliant images. This equipment is of course more portable than the 35 mm. unit. In the 16 mm. type of apparatus the combined film and sound projector, the projection lamp and the amplifier are all built into one compact unit mounted in a carrying case. A small, light dynamic cone loudspeaker mounted in a carrying case is also supplied. This type of equipment requires only a portable screen to make it complete. The 400-watt 16 mm. portable sound projection equipment weighs only seventy-eight pounds and is particularly adapted for use in schools where 16 mm. films are available.

In selecting portable sound projection equipment the important factors to consider, in addition to those mentioned, are portability and satisfactory pictures for the audience.

Careful consideration should be given to the installation of a sound projection system, especially the permanent type. A suitable projection room must be provided to accommodate the equipment. This room should be constructed in accordance with the recommendations compiled by the projection practice committee of the Society of Motion Picture Engineers. Sufficient space must be provided to mount the stage loudspeakers directly behind the sound screen. The electrical wiring, the loudspeaker racks and the rest of the equipment should be installed in accordance with the manufacturer's installation specifications. In most cases the manufacturer of sound projection systems provides a capable engineer for a period of several days to supervise the installation and instruct the employees in the operation of the equipment at no extra cost.

Except in small rooms, the space used for sound motion pictures requires acoustical treatment in order to obtain high quality reproduction. Poor acoustic conditions invariably exist in auditoriums having hard plaster walls and ceilings and cement floors, and where wooden seats are used and furnishings are lacking. Capacity audiences, however, greatly improve the acoustics of a room. Objectionable effects originating from reverberation, echo, resonance and other sound interference phenomena may be either entirely eliminated or reduced by observing the following precautions: (1) use heavily upholstered seats; (2) install padded carpeting (preferably over the entire floor area); (3) treat all surfaces remote from the stage (or loudspeaker location), particularly the rear wall, with drapes or some other sound absorbing material; (4) in constructing such rooms avoid curved surfaces, long, narrow auditoriums, high ceilings, and large, unbroken surface areas.

Dental Examinations Among Detroit School Children

Dental examinations were given 300,000 school children in Detroit in the year 1932. Reports indicate that 123,000 of the pupils examined had permanent decay, 150,000 of them had temporary decay, 75,000 had abscessed teeth and only 45,000 pupils in the group had "satisfactory" teeth.

Volunteer dentists from the Detroit District Dental Society, the Children's Fund of Michigan and the department of health provided for indigent children 35,056 appointments.

Council on Schoolhouse Construction Meets at Milwaukee

Rehabilitation of existing school plants as an aid to national recovery and as a boon to public school systems was the leading topic and aroused vigorous discussion

SERIOUS attention and much of the time of the eleventh annual meeting of the National Council on Schoolhouse Construction, held at Milwaukee, September 18 to 20, were devoted to the effect of the national public works program on the existing plant and on the sadly needed new construction for elementary and secondary public school buildings.

By unanimous resolution the council decided to bring before the attention of the director of the public works program the most pressing current school need, the rehabilitation of a badly depreciated capital investment. During the past three years curtailed budgets have resulted in sad neglect of repairs and improvements to existing school plants. At present each state is facing the problem of how to overcome this neglect. The council felt that the need for rehabilitation was even more insistent in many instances than the erection of new structures. As a means of offering immediate employment and direct stimulation of subsidiary industrial activity without the delay occasioned by the preparation of plans and the natural precautions essential in public expenditure, the focusing of attention immediately on rehabilitation would be exceedingly helpful as an aid to national recovery and would be of inestimable value to the public school systems in every state.

J. Fred Horn, newly elected president.

Three Plans for Securing Federal Aid

The council will ask the national administration to consider at least three possible plans. The first would allow the 30 per cent grant on the basis of current maintenance programs. The second would permit a district to develop a five-year program of rehabilitation based on a 70 per cent loan and a 30 per cent contribution. The third would recommend a 30 per cent contribution on the average upkeep need as determined on an average of the expenditures for the past five years. If the public works program administration rules favorably on these recommendations, a great problem of public education—physical depreciation to a point of danger to children and adults—will be solved.

Many questions relating to the development of entirely new school projects have been ruled upon so diversely in different states that the council is also asking, through the federal Office of Education, for a clarification of these existing discrepancies to speed up applications to enable the states to take immediate advantage of conditions in order to relieve congestion at the earliest possible time.

The opening session on Monday was devoted to the customary addresses of welcome. Alice Barrows, specialist in school building, Office of Education, reported on the survey of elementary building utilization carried on by the Office of

Education in cooperation with regional school planning advisory groups consisting of school and architectural specialists. Her presentation was summarized in four conclusions: (1) the elementary school curriculum is evolving rapidly and radically, and the physical school plant within the last decade reflects these changes in increased and differentiated facilities; (2) the major waste in school buildings today is not in constructional planning but in educational designing and administrative inadequacy; (3) contrary to popular assumption, the elementary school can afford modern facilities to meet changing social needs and these needs may be satisfied as reasonably and even more cheaply than under the traditional or customary curriculum; (4) new and existing buildings may be organized administratively to eliminate current waste.

G. E. Wiley, assistant chief, bureau of buildings and grounds, Milwaukee Public Schools, reported as chairman of the committee on sites and grounds. The current report was confined largely to types of playground surfacing and methods of application. Milwaukee experience appeared to favor asphalt and tar, although the report indicated that the variables of climate, soil, drainage and use would be determining factors in each locality. The committee advocated an extensive research program in all sections of the country to determine experimentally the best material.

S. L. Smith, director of school building in the South for the Julius Rosenwald Fund, made his annual report on the status of schools encouraged and assisted through foundation grants. The development of Negro education, stimulated by this philanthropy, is hard to realize unless one studies carefully the detailed data presented by the director.

Building Codes Must Be Flexible

The detailed and technical report of the committee on codes and construction was presented by G. D. Koons, department of education of New York State, in the absence of F. R. Scherer, superintendent of buildings and grounds, Rochester Public Schools, Rochester, N. Y. Because of its length and technical features it was laid on the table and referred to the council for study at the 1934 meeting.

The Monday evening session was devoted to consideration of the fundamental philosophy underlying legal codes and also their relationship to school design and construction. R. H. F. Halsey, deputy superintendent of school buildings, bureau of construction and maintenance, New York City, developed the true value of the legal code as a guide and aid but not as a rigid master which prevented change in accordance with social need. His thesis was that codes must be mutable, flexible and quickly adjustable to shifting need. He decried the tendency to strait jacket school construction by rigid statute.

A paper prepared by John W. Sahlstrom, superintendent of schools, Elmira Heights, N. Y., showed the hampering and restricting effect of municipal building codes on schools and other public buildings, due to poor classification, rigidity of the mandatory requirements and a narrow concept of school needs. Much of the so-called extravagance in school plant construction may be traced to the effect of these codes and is not the fault of either architect or engineer.

Extralegal School Plant Standards Analyzed

The 1932 tentative standards for school buildings were adopted by the council. The 1933 report of the committee on standards, as presented by S. A. Challman, director of school buildings, department of education of Minnesota, was discussed at length by seminar method and laid on the table for adoption at the 1934 meeting.

Results of three significant pieces of research on the school plant were presented at the Tuesday session. Dr. Haskell Pruitt, department of education of Oklahoma, presented an analysis of extralegal school plant standards, developed by accrediting and higher institutional inspection. These have come to be as powerful as direct statute enactments. The effect of these standards upon instructional results, as determined by the Oklahoma state testing program, is negligible. Doctor Pruitt's thesis opens a large field for speculation, consideration and broader investigation of this extremely interesting subject.

Prof. R. L. Hamon, Peabody College, Nashville, Tenn., discussed the effects of various types of horizontal spacing on classroom lighting. His experiments were conducted in a model classroom and no children were present. The results did not indicate any worth while difference between the much recommended single battery of horizontal windows and the practice used in unit construction of carrying at least a three-foot mullion between every other construction unit. This research opens a wide field for speculation regarding many practices that are now standardized. The use of the central mullion permits a more attractive exterior design and does not handicap the advocates of unit construction. In general, it tends to be more economical. A significant finding was that the poorest lighted desk in any row of seats is better lighted than the best lighted seat in the row next removed from the window.

Fred W. Frostic, superintendent of schools,

Wyandotte, Mich., presented the results of replacing teacher control with automatic control of light by means of the photo-electric cell in elementary classrooms. His presentation included arguments covering the fallibility of the human eye to determine light changes as effectively as the body detects temperature changes. Mr. Frostic also questioned seriously some traditional assumptions regarding orientation as a vital factor in school plant placement. North orientation, long considered anathema in the best school circles, was found to give a better general light distribution in the Michigan latitude than does southern exposure, although the initial differences at the window were markedly in favor of the south. His thesis was that automatic control of light to conserve eyesight was just as important as automatic control of temperature.

Dr. Thomas C. Holy, Ohio State University, Columbus, presented the results of extended research on the subject of state *versus* commercial fire insurance for public school buildings. His conclusions indicated definitely that the state could carry its own public school insurance at a large annual saving to the taxpayer. A bill advocating this practice is now before the Ohio legislative assembly.

New Officers Elected

At the annual dinner on Tuesday night the following officers were elected for the 1934 meeting: president, J. Fred Horn, director of school buildings, department of education of Texas; vice-president, R. H. F. Halsey, deputy superintendent of school buildings, New York City; secretary-treasurer, William C. Bruce, Milwaukee; executive committee—W. G. Eckles, department of education of Mississippi, chairman; N. E. Viles, department of education of Missouri, and Guy E. Wiley, Milwaukee Public Schools. Suitable resolutions were offered to the retiring president, Dr. H. W. Schmidt, department of public instruction of Wisconsin.

At the final session on Wednesday morning Director J. Fred Horn presented a paper on the remodeling of school buildings prepared by A. E. Wittman, assistant in the school plant division, Austin, Tex., and the council received and considered the committee report of Director R. V. Long, department of education of Virginia, on mechanical and service systems. In conformity with custom, adoption was delayed for one year. N. E. Viles' committee report on operation and maintenance of school plants was received, discussed and also placed on the table for final action at the 1934 meeting. The final afternoon session was devoted to visiting Milwaukee's newer schools and playgrounds.

Are the Children Endangered?

In an effort to spread employment among unappointed teachers the board of superintendents of the New York City school system has decided to assign two substitutes instead of one to every so-called vacancy. Such a vacancy occurs when a regularly appointed teacher takes a sabbatical or maternity leave of absence, and it offers a chance for steady work at daily wages to the substitute lucky enough to be assigned to the class. Since there are approximately 1,200 vacancies of this type in the elementary school division, the new plan of the superintendents will offer jobs to 2,400 eligible teachers.

Under the proposed method of assignment the one substitute will serve for a week at $6 a day; then the other will serve for a week at the same pay. Officially each substitute will be required to teach only in the week for which she is drawing pay; however, in the week when she is officially off duty she will be required to cooperate sufficiently with her colleague so as to maintain the continuity of instruction.

It is at this point that the share-a-job plan of the superintendents requires careful examination. Is it possible to alternate teachers in the same class without endangering the welfare of the pupils? It seems much like assigning two cooks to bake one pie. The superintendents should consider the protests against the scheme that have been made by teachers' organizations, including the New York Principals Association. The effort to spread employment is in itself commendable, and the superintendents merit the gratitude of the thousands of idle teachers for giving thought to the problem. However, the welfare of the children should be the prime consideration in every move of this kind.

Injuries to School Children

Forty-four per cent of all injuries to school children in 1932 occurred either on the school grounds, in school buildings or on the way to or from school. Those on the school grounds took place mainly on apparatus or in football games, and those within the school building happened chiefly in gymnasiums and shops.

Automobile accidents were responsible for most of the injuries sustained by children going to or from school.

Thirty-five per cent of the injuries occurred at home, however, from such causes as falls, burns and cuts, and 21 per cent mainly as the result of street play. The National Safety Council supplied these figures.

Training for Adult Life Should Begin at Elementary School Level

More studies are needed of children's activities, needs, interests, problems and situations at different age levels and with different economic, geographic and cultural backgrounds

By BESS GOODYKOONTZ, Assistant U. S. Commissioner of Education

THE one who plans the intellectual diet for the elementary school level in this country must bear in mind that he prescribes for twenty-four millions of children, nearly 20 per cent of the total population of the country. These millions of children cover a wide age range—from four or five years in the kindergarten to fourteen or fifteen in the eighth grade.

In spite of the rapid organization of junior high schools, seventh and eighth grades are still elementary grades for three-fourths of the children of that age and probably will be for some time, particularly in rural areas. Even in large cities where the movement for junior high schools has progressed most rapidly, 45 per cent of seventh and eighth grade children are still enrolled in elementary schools. This age range in itself indicates the variety of developmental problems to be considered in dealing with this group.

Equally great differences are found in backgrounds. More than 40 per cent of our population are still living in open country or small villages. That means that large numbers of children for whom we plan are enjoying the many advantages of country and small town life—its intimacies and neighborliness, its opportunities for seeing and participating in many home and community businesses. These children attend small rural or village

schools with their well known advantages and disadvantages.

At the other end of the scale are millions of children who live in densely populated areas where social contacts press upon them from all sides. Sometimes the very rapidity of growth of the city has deprived the children of many opportunities for play and for work which homes and communities formerly provided as economic and social units. Schools at both ends of this long scale and along its course face the problem of understanding these different backgrounds, of supplementing and sometimes of correcting the work of their educational agencies.

A fine arts activity group in a New York City elementary school. These pupils are receiving training that is valuable as a basis for meeting adult needs.

A study of what happens to children as they progress through the elementary school reveals another reason for this wide range. Of every thousand pupils who finish fifth grade, 950 will attend the sixth grade, 850 will enter the seventh grade and 670 will attend the eighth grade. For all children the elementary school is the first formal educational agency to assume responsibility for a large share of their time. In addition, it is the conclusion of formal training for a large number of children. This fact complicates the situation.

Education at the elementary level requires as a major objective that the individual shall develop the intention of physical health, shall secure the information about himself and the rules of health to make healthful living possible and shall establish health habits as a matter of course. For some time there has been almost complete agreement that the less one knew about the body's functions the more apt one was to treat it properly. Recently this theory has given way to one which permits considerably more information, unaccompanied by imaginative characters or details, coupled with a modification of the school's daily program to make at least that part of the child's day spent in school as nearly healthful living as possible. Such guidance for mental health habits as the school is capable of, through instruction and through the example of its teachers, should also be supplied. Education for health is one of the first requirements that homes put upon schools. They must continue, supplement and correct the developmental program begun at home.

As a second objective those who attend common school should develop competence in the tools of learning. They should be able to speak and write their own language effectively, graciously and correctly. They should read understandingly, appreciatively, rapidly and, in view of the age in which they live, almost continuously. In mathematics they should do much more than develop facile skill in computation. Arithmetic is only the trade name under which elementary schools present the vocabulary, science and practices of the business life in

A group of third grade children in Oakland, Calif., who are members of a "Bee Club." Note the amount of material concerning bees which these children have collected and which they have systematically arranged.

which we live, of the development of the institutions by which our world is run and an explanation of the interdependence of many of our activities.

It is commonly agreed that the elementary school should develop both a reasonable degree of proficiency in these tool subjects and such correct habits of practice that further proficiency will follow. I think it is fairly safe to assume that for many persons who do not continue formal education, and for many who do but do not later follow a profession which makes unusually heavy demands for the practice of these tool subjects, elementary school proficiency will be the highest they will achieve. For this reason higher standards rather than lower ones seem desirable.

The problems of the day are completely baffling. Within a few years a nation runs the whole course of economic practices, vocabulary and theory, without any apparent reason or consistent course. Science not only solves problems for us, but it unsolves many which we thought were settled. Information, background and practice in thinking and acting upon the basis of thorough understanding of the total situation are necessary if children are to have any semblance of poise or any ability to help solve the perplexities of the economic-social squirrel cage.

This is not outside the province of elementary school children. Though incomplete, their information covers many fields. That even young children have a generous fund of information about current affairs is shown by such studies as Burton's in which the items of civic, social and economic life most familiar to children were, in order of rank, bootlegger, divorce, sheriff, juvenile court, bail, jury, mayor, election, polling place, ballot and taxes. The elementary school age is not too early for boys and girls to understand the complexity and interdependence of human affairs and to develop the habit of collecting and acting upon the

A sixth grade group actually engaged in carrying on the weekly banking in an Oakland, Calif., school. In this activity a great premium is placed upon accuracy on the part of the school tellers and cashiers.

evidence. Courses which have information-getting and problem-solving as their purpose should not underestimate children's experience and habits of straightforward thinking.

Closely related to this is another essential of elementary education which may be called the fundamentals of scholarship. This should probably be listed as a triple A essential for the college level. When elementary pupils select one reference rather than another on the basis of clarity of explanation; when they compare points of view; when they summarize a situation and draw inferences; when they trace developing characteristics or processes, they are practicing the fundamentals of scholarship. The same activities raised to the nth power might well characterize college level scholarship, but they may begin at the elementary school level.

An Important Task for the School

The development of culture is a relay race. One generation passes on to the next the best it has in the way of appreciation of music, art, literature and drama. It encourages participation in them as contributions to the group and as refreshment to the individual. Thus the individual's rich resources benefit both himself and others. The elementary school must not be too busy with those skills that are easily turned to practical account to take seriously the obligation of including as a prime essential the cultivation of many broad and probably not too critical interests and activities. These will include building, illustrating, drawing, watching, listening, dramatizing, singing, playing and many other types of constructive enterprise.

It seems redundant to add to this list training for citizenship as an essential of education. Each of the five heretofore listed adds an element of good citizenship. Nevertheless the five do not of themselves embrace training for being a good member of the many social groups of which an individual is a part—his home, his play group, his neighborhood, his school and his town. As in the case of physical health, the child's home has laid the foundation of character development. Other institutions have contributed. Together they should work for sympathetic understanding of and guidance for the many character testing situations that confront boys and girls of elementary school age and persist in adult life. The greatest of these essentials of elementary education is the training of character.

These brief definitions of the purposes of elementary education form only the barest outlines of its program. In order to plan the details that make up the day's work, two further steps are necessary: first, studies of the major problems and worth while activities of contemporary life in which boys and girls will probably share in adult life, and second, studies of out-of-school activities and interests of elementary school pupils. Such studies enable the school to meet children on the levels at which they are thinking and working and to lead on from there. They show, too, the extent to which contemporary problems of child life serve as introductions to the difficult problems of adults.

Unfortunately there are too few such analyses of elementary school children's out-of-school interests and activities to pad out these bare outlines of essentials on which there is fairly common agreement. A few may be briefly sketched to show their function as modifiers of the curriculum.

Elementary pupils are in school less than 20 per cent of their waking time during each of their school years. What they do in the other hours, particularly those devoted to play or recreation, has immense significance to the school as an indication, on the one hand, of interests and special abilities, and, on the other, of programs that need supplementing.

A most inclusive study of children's out-of-school activities is reported by Sara E. Chase, principal of an elementary school in Springfield, Mass. From more than 200 fourth, fifth and sixth grade pupils in her school, Miss Chase collected accounts of what they did after school and over the week-end for a period of several months. In this particular group she found no real team play in games and no very active play in spite of the fact that this intermediate grade age is commonly the gang age when children's group activities are supposed to predominate.

Reading the Only Common Recreation

The three recreations reported the largest number of times by boys were playing marbles, going to the movies and reading books. Girls reported reading books, looking at the funny papers and going to movies. Apparently even intermediate grade children like to take a good share of their recreation sitting down. In spite of the fact that the largest playground of the city could be reached by a ten-minute walk, only six of the children reported going to the playground after school or over the week-end. True to current belief that children of this age adore make-believe, the list of imaginative plays submitted was a long one. Since reading ranked high in the list of after-school and week-end recreations, we are not surprised to find that these 200 boys and girls read nearly 1,200 books during the five months of study. Fourteen children did not read any books, while one girl read eighty-six. Moving pictures, also ranking high in the list of recreations, accounted for nearly 1,200 tickets, the boys averaging seven and the girls

These boys in a New York City elementary school are deeply engrossed in learning the secrets of electricity.

four. The children who had long moving picture lists also had long reading lists.

Miss Chase concluded that aside from the reading there was little correspondence between her school's training for the use of play time and the things that children actually did. What children like and what they get need not necessarily be the same, but what they like and what they may be taught to like have significant relationship.

A few years ago Americans were chuckling over the admission that only three persons in this country understood Einstein's theory of relativity. Events of the past few years indicate that not even that many persons understand American business principles and practices. We live in a world which, Midas-like, has turned nearly everything to gold or its equivalent. Rent, leases, landlord, tenants, mortgage and installment collector are household words and worries. Chain store, cut rate, budget, calories and low cost diets will soon be among the housekeeper's 10,000 commonest words.

The elements of business education, however, are hard to find in elementary courses of study in spite of the fact that studies of children's out-of-school activities show that they share in the world's business. Miss Chase found that children of intermediate grade age were spending a good deal of the family's money. In a month they averaged about twenty trips to near-by stores and handled for their respective families more than $2,000. Aside from this their activity lists showed few occasions for the use of the sort of arithmetic they were being taught in school.

In a study of the business affairs of pupils in the George Washington Junior High School, Pasadena, Calif., more than half the children reported such activities as doing errands for teachers and parents, using pay telephones, making long distance calls, sending packages by mail, buying theater tickets, using city directories and maps, giving receipts for money, selling tickets for plays, acting as club treasurers, keeping savings bank accounts, cashing checks for parents, making life insurance payments, sending money by mail and earning money themselves. Though these reports were made by junior high school pupils, the activities listed are identical with those in which younger children often engage.

A study reported by the director of the commerce department of Lincoln High School, Cleveland, summarized the business problems which ninth and tenth grade boys and girls reported their families or friends were facing. Cashing insurance policies, collecting bills, collecting on notes, collecting rent,

returning falsely advertised merchandise, securing workmen's compensation and reporting automobile accidents were reported most often. These reports were made by older children but they suggest the types of economic discussions going on in families with younger children. They illustrate, too, the kind of business education young children are getting and the importance of analyzing both mathematics and social studies courses to see whether provisions are being made against the prevailing business illiteracy.

Several studies have direct implications for the character training program of the elementary school. Miss Chase reported summaries of police interviews with the boys of her school and telephone complaints received at the school about children's lack of respect for the property and comfort of others. Destroying or defacing other people's property, borrowing bicycles and other property, ringing fire alarms, lighting bonfires and damaging vacant houses are only a few of the conflicts with convention and the law that Miss Chase's study suggests as the basis for school discussions.

Situation Demands Careful Study

Dr. Albert Carmichael, in a study to discover the moral situations that six-year-olds face and the responses they make to these situations, found high on the list those involving the enjoyment or use of property belonging to others, those affecting the child's own health, those interfering with another's freedom and those involving the care of one's own property. Similar studies are needed to enable character education and citizenship courses to make more specific provision for the difficult situations that face children for whom the courses are planned. Without such studies character education is academic and pointless.

The authors of these studies of children's contemporary problems in out-of-school affairs have without exception called attention to the significance of their findings for improving the elementary school curriculum and in several cases have pointed out actual lack of correspondence between in-school and out-of-school concerns in the same field of human interests.

It is only by a multiplication of these studies of children's activities, needs, interests, problems and situations at different age levels and with children of different economic, geographic and cultural backgrounds, that the elementary school can approximate a wholesome program. Only through such studies can the details be supplied for the major purposes of education at the elementary level, so that every child is guaranteed those experiences that are valuable not only at the moment but as a wholesome basis for adult needs.

Junior College Records Are Good

By GUSTAV H. SCHLAUCH
Spokane University

The junior college movement in Washington[1] began in 1925, with the founding of Centralia Junior College, under the leadership of C. L. Littel, superintendent of schools, Centralia, Wash. Other junior colleges were established as follows: Mount Vernon, 1926, Yakima, 1928 and Aberdeen, 1930. These four are still in existence, and the total enrollment in 1930-31 was 497, the increase in numbers having been uninterrupted.

There is at present no law in Washington recognizing junior colleges. The four "public" junior colleges are in reality private institutions, supported by tuition fees, and backed by sponsors in the respective communities. The 1929 legislature passed a bill to legalize the junior college, but it was vetoed by the governor.

A study of the success of junior college transfers in higher institutions resulted in the conclusion that the junior colleges are preparing their students for upper division work fully as well as are the lower divisions of the higher institutions themselves. The high school grades of junior college transfers average slightly less than those of the students who entered the University of Washington as freshmen. To the extent, then, that high school grades are an indication of ability, the junior college group is slightly inferior. A comparison of the grades earned at the higher institutions by these junior college transfers with those earned by "native" students at the higher institutions, shows that there is practically no difference in achievement.

A comparison of grades earned at junior college by junior college students with those earned at the University of Washington by freshmen, shows that the junior college grades are slightly higher, in spite of the fact that the junior college group averaged slightly lower in high school. This may indicate either that the junior colleges grade more liberally than does the University of Washington, or that they were able to spur their students to greater efforts.

A study of the junior college transfers who left the higher institutions without completing the work for graduation shows that 70 per cent made scholastic averages of 2.00 or better, that is, an average of "C" or better; and 19.9 per cent made averages of 3.00 or better, or an average of "B." Only one, of a total of 166 junior college transfers attending higher institutions, was actually dropped for failure to maintain a satisfactory scholastic average.

[1] A Study of Public Junior Colleges in Washington, by Gustav H. Schlauch, a University of Washington doctor's dissertation, 1932.

Zoning Cuts Fuel Costs and Prevents Overheating in Small Schools

Small schools as well as large, old as well as new, can have the benefits of automatic heating control through this inexpensive method, described in layman's language

By HAROLD WEFALD, Superintendent of Schools, Dassel, Minn.

THE heating systems of many smaller schools were installed before the advantages of accurate room temperature control were as clearly understood as they are today.

For this reason we see a strange double standard. Children fortunate enough to attend large, modern schools work in classrooms healthfully heated to a uniform 68 degrees, while pupils of smaller, older schools often undergo the ordeal of long hours of devitalizing, dulling overwarmth, alternating with periods of chill.

Overheating Is Wasteful and Harmful

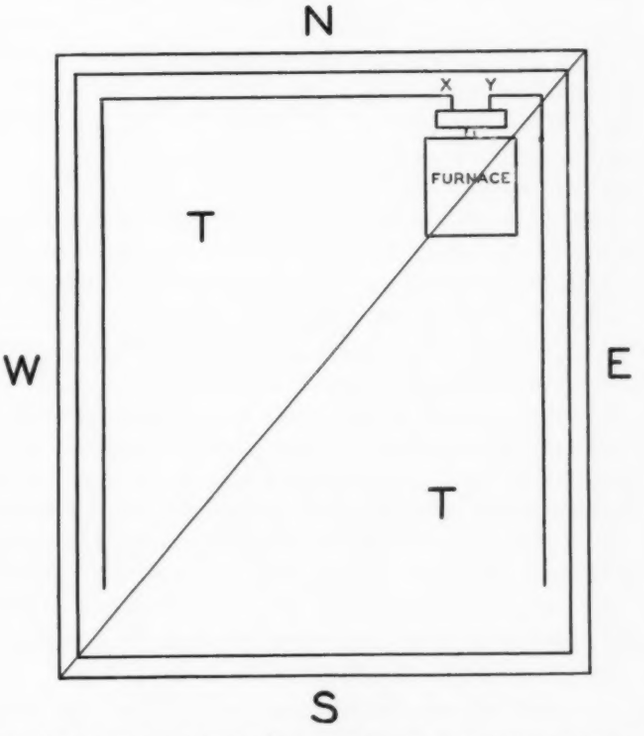
Today we have available definite facts on the consequences of overheating and faulty temperature control. Tests have been made, for instance, which show a sharp rise in the amount of respiratory illness as the prevailing room temperature rises above 70 degrees. And on the cost side, heating engineers now agree on the conservative figure of 3.2 per cent as the additional fuel "tax" for each degree of temperature maintained above 70 degrees.

With such facts as these proving what common sense already tells us, why do these faulty conditions still prevail? The answer is easy. First, there is the natural human tendency to "get along." After all, the days of the old one-room pioneer school with a stove in one end that was red hot one minute and cold the next, are only a generation or two behind us. Second, while we all realize that overheating is detrimental to the pupil's health and mental efficiency, the facts have not been brought home forcefully enough to everyone concerned. And third, automatic heating control all too frequently has been looked upon as a costly luxury, to be considered only as part of new buildings or of modernization of old buildings of considerable size.

It will be welcome news to school executives, therefore, that we have worked out a simple, low cost means of giving small existing schoolhouses the benefit of recent advancements in automatic heating control. This method which we have recently applied in our schools consists of zoning the cold side of the building separately from the warm side, as part of a simple automatic control system. The possibilities of this method were first seen in connection with a recent check-up of more than a score of representative schools throughout Minnesota. In nearly every case it was found that faulty heating could be corrected by zoning.

In order to consider temperature control we must look at four major factors—outside temperature, solar radiation, wind direction and wind velocity. The solution of control problems even in very large, complicated buildings has to begin with proper consideration of these four basic factors.

Let us first consider the factor of outside tem-



A simple heating plant with a header, out of which lead two steam pipes—one to the cold north and west sides, the other to the warmer south and east sides.

perature. We can assume that its effects will be the same in all parts of the building, other factors being equal.

Solar radiation, on the other hand, affects various parts of the building unequally. It warms the east and west rooms part of the day, the south all of the day, and the north portion of the building not at all. Solar radiation is whimsical. You may have it one minute and not the next. Its effect is directly in proportion to the glass area; it increases rapidly as the window area is increased. In considering wind direction, we need to know the prevailing direction if there is any. In Minnesota we can count on a prevailing northwest wind strong enough to require definite compensation in the amount of heat supplied to the windward side. In Minnesota also it is common for the wind to switch to the south suddenly and blow very cold for a day or two against the normally sheltered side of the building. Wind velocity is more of a factor than is commonly realized. A higher average wind velocity is equivalent to a colder average temperature. Wind velocity requires us to consider the type and condition of walls and windows.

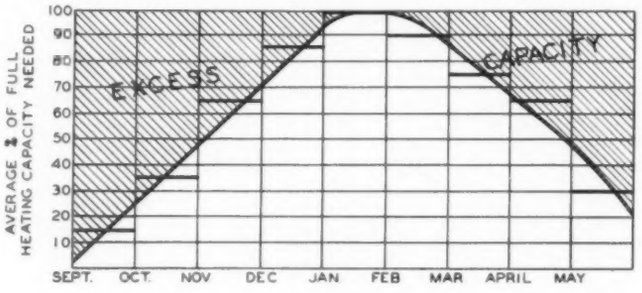
Average Heating Designed for Extremes

Most heating systems in the Minnesota region and in regions of similar climate are designed to heat to 70 degrees at an outdoor temperature of 20 to 40 degrees below zero. The extreme temperature will be encountered on the average of only 4 to 5 per cent of the time, or ten days each winter, but the system must be adequate at all times to take care of this extreme. Hence, the average school heating plant has an excessive capacity 95 per cent of the time. From a study of winter records, and taking January as 100 per cent, it is found that actually only 11 per cent of the heating capacity is used through September, 35 per cent through October, 65 per cent through November, 85 per cent through December, 100 per cent through January, 90 per cent through February, 75 per cent through March, 63 per cent through April and 30 per cent through May.

If we were to suppose for a moment that we could install a removable heating plant each month, just the size needed through that month, we should have a much more efficient record of heating than we do. An automatic temperature control system accomplishes the equivalent of just such an imaginary step. Equipment is now available to obtain any degree of control from the simplest partial control up to a complete automatic system.

As in our own case, a majority of the smaller schools are laid out in such a manner that they may be readily zoned. Engineers specializing in control problems have found that with most smaller buildings a diagonal line drawn from the northeast to the southwest corner through the floor plan gives the beginning of a sound zoning system.

The diagram on the preceding page shows a heating plant with a header, out of which lead two steam pipes—one to the cold north and west sides of the building, the other to the warmer south and east sides. After thus diagonally dividing this system, the next step is to put a zone valve (motorized) at X, where the piping leads to the north and west rooms. Then we locate a thermostat (T) somewhere in the northwest part of the building, taking into consideration the prevailing northwest winds. This thermostat and valve constitute a separate control system for the steam going to the cold sides of the building. Next we put a valve in the header at Y controlling steam distribution to the east and south rooms, and another thermostat (T) in one of the southeast rooms. These two instruments provide for the sides of the building having solar radiation.



This shows the average percentage of full heating capacity required.

Now let us see what happens to this simple system when the weather begins to act on it. When the temperature in the south or east room reaches 70, the thermostat acts and the valve closes off, shutting down the steam to the warm rooms but still allowing full head of steam to go into the northwest section where it is needed, on account of the cold wind and lack of solar radiation.

That, in a few words, is a picture of how zoning works to save steam and prevent excessive heating. Without this zoning, half the school would be suffering in a stifling heat in the janitor's zeal to keep the other rooms warm enough.

This system also follows shifts in the wind, automatically reversing as needed.

It is possible to supplement zone control with individual radiator control to accomplish definite control within the different rooms of a zone. As many or as few radiators as desired may be handled in this manner. In case of smaller schools where the zones are small and properly placed, the average temperature is fairly well maintained without this additional aid. In larger schools, some individual radiator control is recommended.

When Shall a School Building Be Remodeled?

Before deciding whether to rehabilitate existing school buildings or to replace them with new structures, certain questions must be taken into consideration

By A. E. WITTMANN, Assistant, School Plant Division, State Department of Education, Austin, Texas

WHEN an aroused and sometimes enraged public, with its mind turned to reduction of taxes, reduction of public expenditure, and reduction of "waste in public education," stubbornly refuses to vote bonds or otherwise to provide funds for the enlargement of the school plant, those in charge of public education are required to eliminate whole programs of study and to crowd more children into already crowded rooms in order to preserve the equilibrium of Mr. Taxpayer's dollar.

These Questions Must Be Answered Affirmatively

This condition has turned the attention of school officials to rehabilitation of existing buildings as a solution to the problem of housing modern educational programs without the stupendous outlay customary during the past decade. Judicious planning, coupled with modest expenditure, can often make an apparently obsolete building serve a definite purpose in the most modern school system.

The remodeling of an old building presents much the same problems as does the planning of a new one. The same questions arise and must be answered. Can the building be made to serve the educational program? Will the expenditure be justified? Can the building be made to meet legal requirements and the requirements of present day schoolhouse planning? Can the money for the work be provided? If these questions can be answered affirmatively, then the job is ready for attack strictly from the standpoint of remodeling. One definite limitation exists that is not encountered in developing plans for a new structure. The outside walls are fixed and the limits of space set.

Can the building be made to serve the educational program? If the original plans and specifications cannot be secured, the first problem is to make a complete plan of the building as it stands, with detailed notes as to construction and materials. When these plans are ready, the space can be studied with reference to the activities to be carried on and the number of pupils to be accommodated.

If an elementary school is to be housed, the study simplifies itself when home rooms only are to be provided. The assumption in that case is that all activity rooms are already in operation. If a high school program is to be cared for, the problem becomes more complex, for science and home economics laboratories, library and shops present varying space requirements that must be carefully studied, each in the light of the special program to be carried out.

No rule of thumb method, then, can be set up for determining whether or not an existing building can be remodeled to take care of the proposed educational program. Each building and each educational set-up presents its individual difficulties. Unless the two can be brought together, remodeling cannot be justified.

Compare Cost of Remodeling and New Building

Will the expenditure be justified? When plans for remodeling have been tentatively worked out, an estimate of the approximate cost of the work proposed should be compiled. In order to make a sensible decision in the matter, the problem should be figured also from the angle of entirely new construction. Hence, an estimate of the cost of new construction to provide the required space should be carefully worked out. The costs should be compared, and the remodeling undertaken only if the amount to be expended is enough less than the expenditure for new construction to make it financially worth while.

One thing that must not be overlooked in making this comparison of costs is the longevity of both new and remodeled structures. Although the life of any building is not accurately predictable, yet we can judge the approximate length of service that we may expect from a structure, barring

acts of Providence, conflagration and war. If the cost is the same and the expected length of service the same, few persons would vote for remodeling. If the cost of remodeling is one-third that of the new structure and the expected length of service is one-third, the question would be simply whether to spend a smaller amount now and then erect a more expensive building when the remodeled building has served its purpose.

If the cost of remodeling is $5,000 and the cost of new construction is $30,000, the length of life of the remodeled building is thirty years and that of a new building is thirty years, the answer is that the same service can be secured for one-sixth the amount. The decision under the last condition is not difficult. Sometimes remodeled buildings will give longer and more satisfactory service than new ones.

Can the building be made to meet legal requirements and the requirements of present day schoolhouse planning? Most states and many cities have definite legal and regulatory requirements for new school buildings, and many of these codes demand that no remodeling be done unless the building can be made to conform to the general requirements of new construction. Can proper fenestration be provided? Can an efficient heating and ventilating system be installed? Can adequate sanitary facilities be planned? Will means of egress be adequate? Will fire protection be ample? These and similar questions must be answered with a positive "yes" before remodeling can be justified.

Some Prime Considerations

Can the money be provided? This question is always present in any project involving school plant expansion. Will remodeling one building stand in the way of a future building program? Perhaps a $5,000 bond issue for remodeling purposes in 1925 was responsible for the defeat of a bond issue for new construction in 1933. The people, having been told that $5,000 would put the school plant in shape for the next twenty-five years, refused to vote a much needed bond for $50,000. Sometimes a $1,000 bond issue to renovate a building that should not be renovated raises the bonded indebtedness of a school district to such a point that an adequate sum cannot be voted for new construction even if the people are willing. There is more to this question than merely, "Can we get hold of the cash at this particular moment?"

When shall a school building be remodeled? Before remodeling can be definitely decided upon the questions discussed in the preceding paragraphs must all be satisfactorily answered. Other considerations are wrapped up in the building *per se* and these must also be considered.

The following questions are prime considerations: (1) Is the foundation sound? Can it be made to serve new loads that may be imposed? (2) Are the walls safe? Can they be safely penetrated and new openings provided? (3) Can partitions be moved without endangering the safety of the structure? (4) Can waste space in the old structure be eliminated? Or will waste space be avoided in the new plan for remodeling? (5) Can present joists and other construction be safely used? (6) Can any material torn out be salvaged for use in the new work?

The First National Bank of Health, Sprucemont, Nev.

The First National Bank of Health, Sprucemont, Nev., is only a five-gallon gasoline can on which have been painted doors and windows, but it has made personal cleanliness popular in the Sprucemont school and is paying dividends in the form of better health for the children.

Through a slit in the top of the can, the white deposit slips flow in. Interest, on blue cards, mounts rapidly and the red withdrawal slips are few. Point by point, the children have been banking daily practices, daily accomplishments, until they have a capital of well established health and good citizenship habits that is gratifyingly large.

Deposits which each child is entitled to make are determined by an inspection, and by the report of the child himself on his home activities and habits.

The girls take weekly turns wearing a Red Cross arm band and being the "nurse" responsible for inspections, which are held before school opens if the children arrive early.

Ten points each are allowed for clean hands and arms, clean teeth, clean nails, two baths weekly, hair properly cut, dry feet, clean clothing, a clean handkerchief and a clean desk. A clean face, clean neck and hair neatly combed rate five points each.

Most of the home work credits—for doing a regular daily chore, getting to bed at the right hour, drinking two glasses of milk daily, eating cereals and fresh vegetables and fruits and taking cod liver oil when it is needed—count ten points each.

Bank withdrawals provide practically all the discipline needed. The charted list of offenses which deplete the bank account includes tardiness or absence without a written excuse from the parent, lack of pride in the school or yard, waste of school property, disobedience, dishonesty, poor sportsmanship in work or play, greed or selfishness, and tattling.

The School Plant:

Danger Zones to Watch in School Plant Upkeep

By FRED. W. FROSTIC, Superintendent of Schools, Wyandotte, Mich.

IN TIMES of drastic retrenchment and short-sighted economies, such as the present, the matter of school plant maintenance usually is given little consideration among the problems of financing educational needs.

Too often maintenance is either reduced to a small fraction of the actual requirement or is neglected altogether. Things out of sight are readily put out of mind in the preparation of school budgets or in the final distribution of available funds. It is easy to delay needed repairs on the assumption that more money will be available the following year, but the chances are that the next year will find the budget even smaller. In the interim the repair zone has spread and the cost of making the repairs has increased. It is possible to refund bonds when they come due, it has even been found possible to make the banker and bondholder wait for the interest on bonds; but wind, rain, ice and snow continue to collect their principal and interest compounded in spite of all efforts at delay.

The well administered school system shows comparatively little reduction in maintenance costs during the years of an economic depression. Material and labor may cost less, but practically the same amount of work will need to be done as in other years. Delays in needed repairs are costly and often dangerous. These danger zones must be watched closely by the executive to ensure against the accelerated demands of the future.

A Danger Point for Leaks

Parapet walls that project above the roof line are particularly susceptible to the disintegrating effects of sun, rain and freezing temperatures. Many well constructed and ornately designed front walls have a poorly constructed back of soft brick or tile on the roof side. In cheap construction inside tile often is used to back up the front wall. Such materials readily absorb rain water and melting snow. The consequent expansion and contraction, due to temperature changes or ice expansion, disintegrate the wall at a rapid rate. Water works its way downward into the building and damages the outside walls, the interior walls and the plaster.

The tops of these walls are usually capped with stone, natural or artificial, or with tile. This is a point in construction that must be carefully watched. Excessive summer heat, followed by periods of rapid cooling at night or by sudden showers, causes extreme expansion and contraction of these exposed blocks. This breaks the pointing materials used between the stones or tiles and opens a direct channel for water to penetrate the wall below.

Annual Repairs Will Save Money

Adequate maintenance schedules call for yearly examination of parapet walls and copings. A small amount of attention each year will save hundreds of dollars in accumulated repairs. The disintegration of soft backings of brick or tile in these walls may be controlled temporarily by a heavy application of brush applied asphalt, or in more severe cases by the use of plastic roofing cements which may be troweled on. These treatments are at best temporary because it is impossible adequately to protect inferior material of this type from disintegration. Eventually this soft material should be removed and the wall faced with hard burned brick, which is more impervious to water. Attempts to face the softer materials with concrete are usually unsuccessful because cracks and crevices develop in the coating and admit water, which allow the disintegration to continue in the interior. While hard brick is not absolutely impervious to water, its rate of disintegration can at least be retarded. This brick need not be of first quality. It may even vary in color and texture. If it is overfired so much the better. Thus a more impervious wall may be built at a lower cost than the exterior wall where appearance is important.

The joints in the coping stones should be packed with oakum or lead wool in the interior and the outer part should be filled with stone pointing cement or with elastic roofing cement. The latter should be used only on upper and rear surfaces so as to avoid smearing the front of the stone. A drip should be formed along the projecting lower edge

of every coping stone to provide against water running back along the under face of the stone and seeping into the wall. If there is no drip and the stone is not to be reset, the angle between the stone and the brick should be sealed with a waterproof cement. The drip can be cut at some future time when the stone is reset.

Faulty Coping Stones May Cause Serious Damage

The expansion, the weathering and the shifting of coping stones sometimes make necessary a complete resetting job. The best type of construction specifications call for a sheet of 16-ounce copper as a bed between the last course of brick and the coping stones. This provides the best protection against water entering the wall from above, and in the event water gets below the coping it is forced to run out on the roof. In cases where the stone is reset and there is no copper sheet, the sheeting should be installed for future protection. A heavy piece of roofing felt is sometimes substituted for copper, as it is less expensive. While the life of roofing felt is not equal to that of copper it will last many years.

Damp walls, loose plaster and stained, peeling paint surfaces usually are caused by faulty coping stones and inadequate wall protection. These construction weaknesses may affect walls from the top story to the basement. Yearly checking and pointing will save expensive repair bills. The stone trim and brick courses, particularly around windows and doors, should be watched closely and repointed or sealed with plastic calking at frequent intervals.

It is often advisable to treat porous stone or brick with transparent sealing compounds. These compounds arrest disintegration and prevent dirt and dust accumulation to a considerable extent. Palminate of aluminum in a suitable vehicle is usually the base of these compounds.

Copper is by far the best metal flashing for roofs. While the original cost of copper flashing is high, the installation is permanent and requires practically no maintenance. Galvanized iron is most commonly used for flashing because of its low cost. Proper maintenance, however, requires that it be painted every two or three years to prevent rusting. Galvanized iron flashing should be painted with a first grade metal paint, aluminum paint or an asphalt. It is a significant fact, however, that the surface which rusts most rapidly and gives the most trouble is not the one exposed to the eye but rather the under or wall side of the flashing. Water from rains and melting snows creep up the under side of the metal and rusting goes on unretarded because this side cannot be reached with a paint brush. This attack from the rear may offset a good maintenance schedule designed to protect the exposed sections, thus supporting the contention that copper is cheaper in the long run.

Gutters must be watched carefully and coated at regular intervals. The walls and joints around skylights are likely places for leaks to develop. Continuous vigilance is necessary if true economy is to be realized.

Proper roof maintenance is important. A roof represents an expensive investment which should be protected by a well organized maintenance schedule. Because of the nature of the work and the special tools and materials necessary to do a good job, most roof repairs can be done better by responsible roofing companies, unless the school system is large enough to maintain a skilled working crew. Minor roof maintenance, such as the application of asphalts and plastic cements, can be done by the ordinary maintenance staff.

Careful observations should be made during and after heavy rains in order to locate leaks both under and above the roof. It is poor policy to wait until water affects the plaster or paint. Each leak should be repaired while it is small so as to avoid large repair bills. The manufacturer of the roofing material should be consulted in order to determine the best maintenance product for his particular type of roof.

Exposed cement roof slabs are a source of considerable roof trouble. Excessive expansion and contraction under varying heat conditions open cracks in roof slabs. Some authorities recommend a felt roof on top of the slab as a remedy. I have found that a coat of asphalt primer followed by a coat of regular asphalt will seal leaking slabs of this type. Treatment of this type applied six years ago has not as yet given evidence of trouble. Such products are inexpensive and easy to apply. They may be used around skylight walls with equally good results.

Window Sash Should Be Painted Regularly

It is imperative that a well timed painting schedule be followed to protect steel window sash from rust. Steel window sash should be painted both inside and outside every two or three years, depending on climatic conditions. In winter, steel sashes often accumulate moisture on the inside which rapidly disintegrates the paint and causes rusting. The sash should be cleaned with steel wool and painted with a high grade metal paint. Excessive rust accumulations are expensive to remove, and if the rust is not entirely cleaned off paint will refuse to adhere to the surface. Rust causes joints to open, makes for unsightly appearance and seriously weakens the thin members of the sash. Glass replacements in a rusty sash are more difficult than in a well maintained sash.

Wood window sash likewise requires a regular painting schedule. The joints should be watched carefully and kept filled with a good quality of outside paint to prevent water from entering. Paints that chalk easily offer little protection. There is no economy in cheap grades of paint. Even the best grades of paints will not hold up long under certain conditions, and inferior grades will not hold up long under any conditions. Meeting rails and bottom rails should be examined at regular intervals, especially at the joints.

Renewals of sash parts should be made of the best white pine. A supply should be kept in stock for immediate use as required. New wood that is only slightly discolored should never be used as it will not last, regardless of how frequently it is painted. The surface may appear sound, but it is often possible, after a few years, to thrust the blade of a knife entirely through replacements made from second grade wood.

Neglected Thermostats Cause Fuel Waste

During a cold day last winter a visiting engineer stepped into the boiler and machinery room of a certain large high school. The firemen were experiencing great difficulty in trying to maintain enough steam to keep the temperature of the building at normal. An excessive amount of coal was being consumed. The visitor counted seven thermostats, all of which were out of order. The firemen were working against themselves. Besides wasting a large amount of coal the firemen were also failing to meet the heating needs of the building. The boilers had sufficient capacity and the heating system was correctly installed and designed. But failure to keep the thermostatic system in adjustment practically nullified the careful work of the heating engineer who installed the system.

No thermostatic control system at all is better than a neglected one. A little intelligent attention from the engineer of the plant in question or a little service from the heat control company would have saved hundreds of dollars in coal and would have increased the heating efficiency. Thermostatic control systems should be checked for air leaks as soon as the gauge fails to maintain its pressure. Thermostats should be checked periodically to make sure that they are opening and closing at the desired temperature. The engineer should be advised as soon as a thermostat fails to perform properly. A thermostat case was never intended as a repository for hairpins or toothpicks. It is a delicate instrument designed to balance the temperatures of the room efficiently. Tampering with thermostats should be classed with turning in false fire alarms. Annual inspection is inexpensive and pays large dividends.

High water temperatures, electrolysis and scale formation raise havoc with the inside walls of storage and heater tanks. The rate of deterioration depends on operating conditions, maintenance and the quality of the local water supply. First among the causes of heater tank disintegration is high temperature. In many cases the thermostatic controls are set too high, requiring a larger amount of cold water to be mixed at the point of use. This is sometimes unavoidable because of the limitations of storage tank capacity. Careful analysis of use will in many cases permit of a much lower temperature to be carried in the heater tank, with a consequent large reduction in pitting and scaling within the tank. Copper lined or sprayed tanks do not deteriorate as rapidly as other types, but their original cost is higher.

Heater and storage tanks should be opened annually, or at least once every other year, according to local conditions. The inside should be cleaned with a sand blast or with a motor driven wire brush and emery wheel until the bare metal is exposed. The inside should then be coated with red lead, or with a commercial heat and water resisting product. This will reduce the rate of pitting and scaling and will make the tank last for many years, provided maintenance is regular.

Vocational Guidance Must Be Developed in Schools

The educational program of the future, in order to meet the needs of youth who cannot find work in industry, must be enriched with industrial arts in the elementary schools and the high schools, according to Harold L. Ickes, secretary of the interior, in addressing the Citizens Conference on Vocational Education. These should be widely diversified to give scope to many types of talents among the pupils. There should be a widespread development of vocational guidance which should mean wise counseling in the preparation for work as well as guidance into distinct vocations. The present situation with respect to employment should not dishearten those who seek to develop a better program but rather should stimulate to greater efforts.

"We need, in addition, the development of distinct vocational education in agriculture, commerce, industry and the home," Mr. Ickes said. "There is no substitute for such training, if we are to give opportunity to the masses of our youth. And, finally, there is needed extension or continuation education in the vocations in which people are engaged to enable them to reach higher levels."

Editorials

Progressive Experiment

THE experiment recently inaugurated by the Progressive Education Association in cooperation with institutions of higher learning whereby certain secondary schools will experiment with a progressive program of education merits attention and sympathy from the school executive. The purpose of the project is to develop in students "the insight, the powers and the self-direction necessary for resourceful and constructive living." The plan proposes a more flexible type of secondary education and one that will be much less under the domination and influence of traditional academic rigidity.

The committee in charge has wisely refrained from the blatant type of publicity program that has characterized many recent experiments in education. Despite pressure, they cling to their purpose of projecting and achieving a program before they begin to talk about it. The chances for its success have been immeasurably increased by this wise action. It will be at least four years before the product reaches the institutions of higher learning. It will be at least ten years before success can be determined with any degree of certainty. The outcome of the experiment may be of great ultimate significance to public secondary education in the United States.

Children Must Eat

SOME months ago in these columns we pointed out the fallacy of the interpretations given to the vital statistics by the surgeon general. Recent high spot survey in a number of larger centers is rapidly turning the eyes of the nation to the problem of the malnourished child, one of the unfortunate by-products of the depression. Survey of these conditions by the Children's Bureau, United States Department of Labor, indicates that at least one-fifth of preschool and school children are malnourished.

Regardless of other factors, growing children must be properly fed. They cannot wait. The nation is already reaping a harvest of unnecessary expense resulting from past social neglect of the child. Unless immediate steps are taken to correct these dietary omissions, thousands of youngsters in this country will progress to maturity with their chances for a successful and robust life tremendously reduced.

Practically all of the corrective work in feeding unfortunate children has been carried on, with most meager support, by the public schools in their cafeterias. Designed originally as essential health adjuncts in meeting special urban problems, these school cafeterias have been invaluable during the depression and they represent one activity that should be actively encouraged. In many districts they are the only means children have of securing essential balanced diet. Practically all free lunches have been paid for by teachers out of their own slender resources. Since the problem has been recognized by the federal government it is hoped that this burden will now be cared for by state and federal relief funds. Whatever else happens, children must eat.

The New School Program

CRITICS say that no one in the new school has an adequate picture of the curriculum as a whole; that no one has really analyzed the whole job; that teachers naturally tend to teach what they know and to follow children's interests wherever they lead; that there is lack of balance; that there are serious omissions here with overlapping and repetition there; that there is no systematic provision for the securing of meanings; that there are superficiality, thinness, inconsistencies and lack of sequential, steady progress from one important segment of the curriculum to the next!

It is not uncommon to find "The Milk Supply" or "The Western Movement" or "Transportation" being taught over and over again in three or four different grades in a school to the total neglect of several other highly important segments of the curriculum.

These alleged weaknesses result from a new organization of the curriculum—an organization of subject matter around dominant interests of learners instead of artificial encyclopedic subject classifications. The new organization is sound in that the interest of the pupil should act as a magnet to draw materials together from different fields. Principles and data should be built into educational experiences as life situations demand. Thus viewed the curriculum is no longer the end of education but becomes a tool—the stuff by which education is achieved.

Since the interests of pupils become, then, the core of the curriculum, the question arises whether education should be or even can be planned in advance. There appears to be a conflict between those

who would plan in advance and those who would not.

In order that the psychological and educational advantages of an interest centered curriculum may not be counterbalanced by serious discontinuities, lopsidedness, repetition and superficiality, sane practitioners in the new education prepare in advance outlines and lists of attitudes, generalizations, appreciations, fundamental meanings and even facts, which they make sure eventually will come within the compass of their children's interests. The new literature and many progressive teachers' notebooks are full of optional activities, units found efficacious for bringing about desired results. There seems to be no question in the minds of many progressives but that centers of interests or activities should be outlined in a broad general way by adults, and in advance.

Such advance planning and the following of pupil interests would be paradoxical were all details incorporated in the plans and no variations permitted teachers and pupils. Consistency in this apparent antithesis basically obtains in the too often unrecognized fact that all normal children's natural interests, if allowed opportunity to manifest themselves, are as prodigious as Nature herself; hence the school's opportunity and responsibility to select the most educative and appropriate.

It is desirable to shift the focus to pupil interests so far as the pupil is concerned, but in the process the new education cannot afford to and will not neglect social needs.

A skeleton outline of work appropriate to each grade level, incorporating many activities which have proved their value for all round development and maximum growth, will constitute the new case for present day fundamentals.

The proper development, selection, evaluation, correlation and unification of these elements of the curriculum constitute the major educational task of our era. It is to this task that education should address itself. All sincere students, teachers, principals, superintendents and research workers interested in the forward march of American education may here put their shoulders to the wheel with assurance that a significant contribution can be made.

To replace arbitrary and unnatural classifications of subjects with the compelling interests of children, as the basis for curriculum organization, is as sound and significant as it is revolutionary. Heretofore children have been restricted, almost solely, to memorization. Henceforth children must be privileged to participate in all the significant intellectual pursuits of the school, namely, in planning, organizing, selecting and judging, as well as in memorizing.—*Harry S. Ganders.*

There Is Danger

WITHOUT desiring to be classified among those "who view with alarm," we wish pointedly to call attention to some depression practices and to the rapidly increasing danger to the lives of children.

Gross neglect of the upkeep factor in school plants is resulting in the use of old and dangerous heating systems. At the best many of these could not have been patched for many years with safety but during the past three years even essential repairs have been neglected to such an extent that today practically every Northern state has many districts in which the schools are operated at a distinct danger to the lives of the teachers and children.

Unless school administrators use every practical means to inform their communities of these fire and panic hazards, it is entirely possible that we may hear of accidents of a grave nature in the near future. It is practically criminal to neglect essential repairs to school heating plants for any reason. Means must be found to eliminate these dangers. It is far from pleasant to contemplate a possible series of Collingwood disasters in the future. Certainly the safety of the children should be placed above money.

Henry Suzzallo

IN THE untimely and unexpected death of Henry Suzzallo, the United States mourns the loss of an outstanding educational leader. His long record as teacher and professor, as university president and more recently as president of the Carnegie Foundation is significant and outstanding. In a larger sense, however, these positions, achievements and honors do not constitute his real contribution or describe well his innate greatness.

As a poor boy in San Francisco, Henry Suzzallo became thoroughly imbued with the idealism of the concept of "equality of opportunity." As he grew older and quickly worked his way to large achievement, his boyhood dream was realized. It became so definitely a part and factor of his living that much of his time and all of his influences were given to the greater realization of the democratic philosophy. No educational conference or discussion in which Henry Suzzallo took part was ever allowed to drift far from the central theme of the democratic way of life and the concept of the sacredness and integrity of the individual. Whether he stood before labor, management or capital his rational exposition of the American dream was always intelligently but strongly presented. He

loved justice and freedom. He fought unceasingly for the under dog.

His great dream and his great devotion was the American public school. In contributing to its maintenance and its development he never spared himself. Whether talking to laymen or professionals his message was always the same:

"The American public schools are the only guarantee for the continuance of our democracy and the only hope for its future. We must keep them clean and fine, free from both political and professional selfishness. We must keep them ever close to the people. We may not move so fast as if organized in some other way but we shall move more safely. The people in realization of the possibilities of our schools for their children and their country are much better custodians than a distant bureaucracy."

Henry Suzzallo's chief contribution was the effect on the profession of the spirituality and the idealism that permeated his life and made it impossible for him to rest or to spare himself. He lived richly and fully and he lives on in the hearts of all who knew him intimately and were taught by him.

Keep the Door Open

ONE of the striking developments of the past two decades has been the adult education movement. It grew rapidly out of a distinct social need. Early effort was largely confined to the elimination of adult illiteracy and preparation of the immigrant for citizenship. Later the continuation school on the secondary level grew to meet partially the need for occupational redirection and change. Much more recently came the idea of adult education to satisfy a leisure time need and to provide for a richer cultural life. While some of this activity has developed in extra-institutional fashion most of it was provided by the public schools, the art institutes and the libraries.

The need for adult education must be judged by the demand for it. The actual growth of this movement is paralleled only by the enormous increase in secondary education since 1890. When it is considered that the adult demand is based on interest rather than compulsion, the increase is even more significant. In its cultural as well as in its directly vocational aspects it represents one of the outstanding social needs of the present generation.

From the standpoint of expense it is also easily defended. Plants were already in existence. It was only necessary to provide for lighting and cleaning. On the instructional side the essential personnel was required. It was actually the cheapest instructional activity in terms of real expenditures per unit of instruction. It is true that in the last analysis the social value of an activity must determine its existence, and expense must be considered a secondary factor. However, since present emphasis is continually on expense rather than on value, the expense element is introduced merely to indicate its relative money cheapness.

Considering these factors and taking the broad social viewpoint it is difficult to reconcile principle and current practice. Direct information from many sections of the country indicates that adult education, on all levels, has been one of the activities most ruthlessly cut by panicstricken boards of education and other boards in control of art institutes and libraries. At a period when this type of activity is most essential to both the individual and the group, there has been apparently little clear thinking on the part of governing bodies. With few exceptions it was one of the first things to go. Certain executives managed to retain a skeleton of the organization by placing it on a tuition or self-supporting basis. Although the charge of a tuition rate high enough to cover the entire cost is scarcely defensible in terms of our educational philosophy, it did represent a better ad interim practice than that which simply lopped off the complete adult education activity from the school program.

It is easily understood how a politically minded board of education might react to an activity which it felt had few influential friends and which was therefore open to attack and elimination. It is not so easy to understand why our professional executives have not made a harder fight to save this vital unit. At no time in our history has adult education been more essential than during the current readjustment period. Adult education on elementary, secondary and higher levels is just as essential socially as education for children. It is one of the means through which the disappointed and morale shaken victim of technological change can rehabilitate himself and face the economic struggle with renewed courage. It is one of the potent means whereby the individual may use his leisure constructively and contribute more to the ultimate social welfare of the community. As one of our social bulkheads, it should be one of the last things to be discarded.

It is to be hoped that professional and lay leaders in those communities that have adopted so shortsighted a policy will attempt to educate the appropriating bodies to the seriousness of the need and the activity of free adult education may be restored to the community program. Let us keep the door of opportunity open.

Happy to Say—By WILLIAM McANDREW

OCTOBER! How mankind of the north temperate zone loves this month! You are like a boy toward the end of a show, realizing that it's soon over and every minute in it is precious.

WHY don't you go by yourself, all alone, to the most beautiful stretch of meadow, hills or woods, when the sun is going down, and let Mother Earth give you her soothing, loving lullaby? The knowing ones of ages past have so done. Sky, grass, trees, flowers, have whispered to human hearts before you—poetry, the outcome.

NATURE'S voices are friendly and sincere. They are not flattering for a purpose. They will not ask for special favors.

SCHOOLMASTERS are bothered and hurried too much by assaults of second rate impertinences. If only for half an hour you can in Nature's company be what you were meant to be, or what you would have been if you had been better treated, you will not think the time wasted.

ONCE I was present at a teachers' banquet in Waterloo, Iowa. It was given by the mayor, the chamber of commerce and the service clubs. Teachers sat at the different tables with their hosts. The speeches were acknowledgments of the value of teachers to the town. My visits next day to Waterloo schools showed me that the banquet investment made by the leading people was bringing dividends to their children.

IT WOULD be hard to find a locality where the school superintendent and his friends, by quiet suggestion, couldn't put this Waterloo idea across. And, oh boy, how it pays for the trouble!

EVEN a dog, neglected or abused, soon becomes of no use at all.

A TOWN with a newspaper editor who, without raising popular protest, Menckenizes the school workers in it is in bad. Such a town is like a boat racing crew's backers who sit silent on the shore while their men are being howled down by a blatherskite.

THE majority of teachers are women. Where have you been all your life if you haven't learned to what degree praise and compliment affect women—and men?

WHEN has there been a time that the sleeping approval of the public for its schools was more in need of a wake-up than right now?

DIRECT answer and protest to a school-abusing editor may do some good. It is worth while for the superintendent and teachers to do it for the effect it has on their own proper self-respect. But the reproof you can get solid citizens to write to the editor is specific and effective. No less authority than Al Smith declares that editors are highly susceptible to letters.

THE educator is strong for schedules of studies so that the time of children shall not be wasted. You can get surprises by looking at one of your own days and counting the holes bitten out of it by time eaters.

MOZART could hear his whole symphony before he took up his pen. A superintendent who knows his stuff sees his year, his month, his week, beforehand. This keeps him from days lost among trivialities.

THANK the good Lord for this: The whimpering teacher began to fade out with the beginning of this century. The depression silenced the few that were left. In place, there is growing the hearty type of fighter for a great cause.

I KNOW many a good schoolmaster who is sedulous in teaching children not to take what doesn't belong to them. Excellent! Also teach them that a slight, an offense, a grouch does not belong to them.

IT IS good management to praise generously, but the most effective compliment is statement of the specific thing well done. You can't build anything on apple sauce.

STRIVING for a reputation of individuality may not be acting yourself, but trying to be what nobody is, what sensible persons do not want to be.

OLD stuff to paste in an executive's hat: organize, deputize, supervise.

WHEN our teachers examined our papers they used to count our mistakes and mark us down. Nowadays mistakes lead a teacher to find cause and cure.

Your School—
Its Construction and Equipment

A Department Conducted by CHESTER HART, B.Arch., Chicago

Swinging Blackboard Has Many Advantages

How to obtain a sufficient amount of properly lighted blackboard area without covering all the classroom walls with these dark panels has been a difficult problem to overcome in school designing. The elimination of blackboards on some walls without lowering the square foot area of writing surface has many advantages. The appearance and cheerfulness of the room, and the placing of valuable wall space at the teacher's disposal for display space or storage cupboards should be considered when blackboards are installed.

A new swinging leaf blackboard, made by the Weber Costello Co., Chicago Heights, Ill., provides added writing surface in a small space and also provides a number of mechanical features that allow new uses for prepared material. This four-leaf Webco unit swings on a rod that is attached by brackets to the blackboard frame which is screwed to the wall. The leaves are Hyloplate blackboard or corkboard, and are 3 by 3½ feet, providing 84 square feet of writing or display surface. The leaves turn as easily as a book, and may be held against the wall by means of a lever. Each leaf is metal bound, and may be removed from the pivot, or all panels may be locked up with a small padlock. The four leaves may also be locked in a unit and transferred to another bracket. One thumb setscrew releases the entire set. The total weight is fifty pounds.

The swinging leaf blackboard has many advantages. The leaves turn as easily as a book, and may be held against the wall by means of a lever. Each leaf may be removed from the pivot.

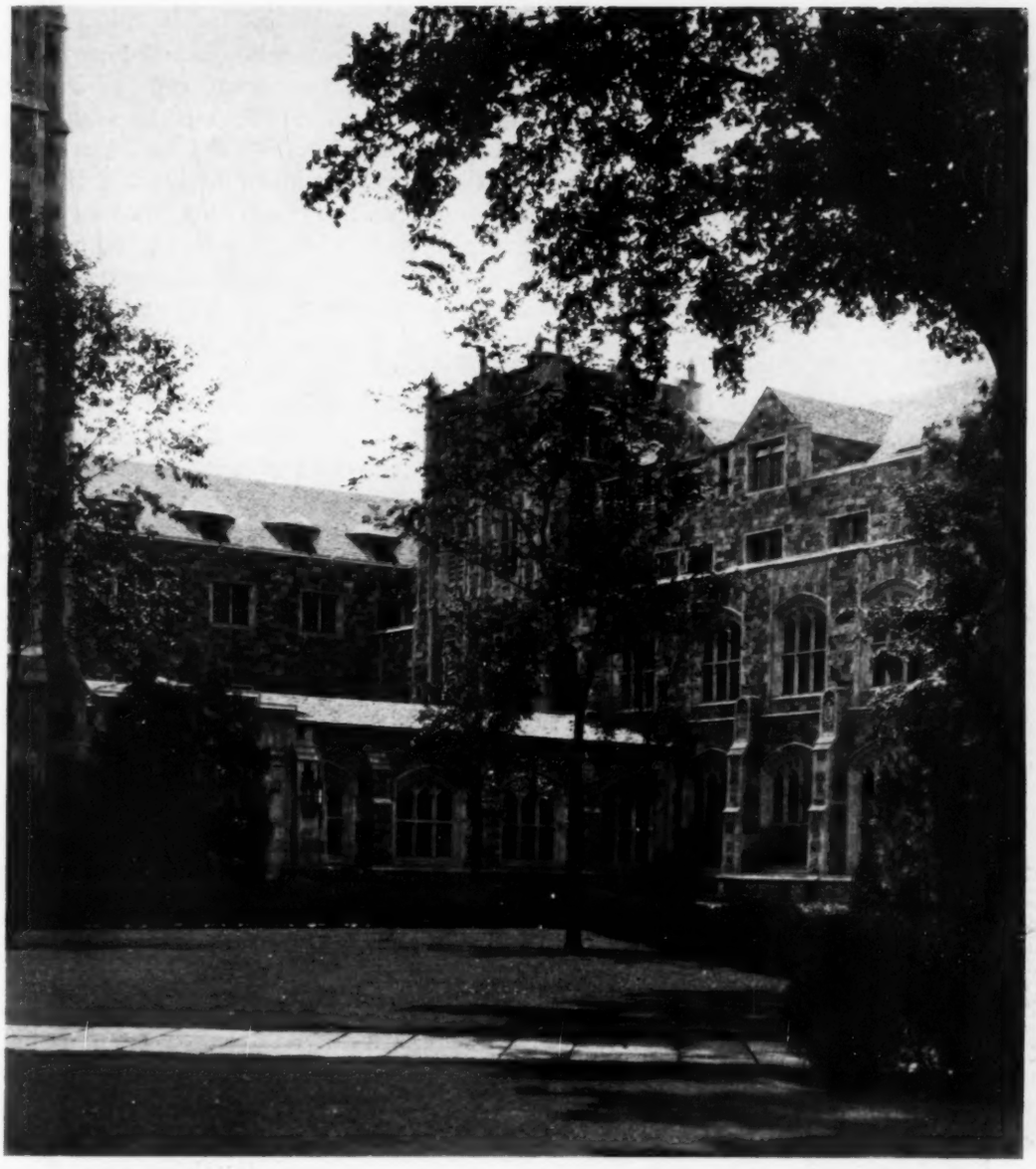
The locking device allows the preparation of material before class assembly, and gives assurance that the contents will not be disclosed until the desired time. This is a useful feature for examination or tests. Prepared material, when locked within the unit, cannot be inadvertently erased by the cleaners, when it is desired to save the material for future classes or reference. The removable leaves allow the preparation of the blackboard subjects in advance outside the classroom. Special supervisors and teachers may prepare this material to advantage for such classes as art, music and vocational subjects, or special graphs, charts or illustrations may be drawn ahead of time to help clarify lessons that otherwise would involve long explanations. These special leaves may be taken from room to room to serve several classes.

The multiple leaf blackboard may be used to increase writing area or bulletin space in the classroom, or to supply such space where none exists. The further possibility of releasing wall space, now occupied by blackboards, for other uses should also be considered.

Special Combination Locks for the School Locker

Two new types of combination locks especially designed for school use have been brought out by The Yale and Towne Manufacturing Co., Stamford, Conn. One type of lock is designed for steel box lockers, and may be obtained with a master-keyed dial or dial operation only. The latch bolt automatically locks the door and also disperses the combination.

The other type of lock is designed to provide a combination locker lock to replace the flat key lock. It fits the same attaching holes as the flat key type. This lock is also made either master-keyed dial or dial operated only. It operates with a



A remarkable new decorative material equally suitable for new construction or applying over shabby, hard-to-clean walls. It is washable, stain-proof, crack-proof—never needs to be painted. Especially desirable for schools, where walls need to be covered with a material which will give permanence at low cost. Many beautiful designs.

SEALEX
Wall-Covering

Sealex goes back to Michigan

THE University of Michigan is not the first university to which Sealex has gone back. Hundreds of colleges, high schools, normal schools, and grade schools have piled up repeat orders on Sealex Linoleum amounting to many thousands of square yards. Wherever these floors are installed, they make good!

In Hutchins Hall, Ann Arbor, Michigan, illustrated above, 1800 square yards of Sealex Battleship Linoleum satisfy every requirement.

In the first place, this material is really resilient. It diminishes the noise of footsteps—promotes an atmosphere of quiet which helps students to concentrate.

Another important advantage is permanence. Sealex colors are *inlaid*—cannot wear off. The periodic expense of painting, staining or varnishing other floors is eliminated. Finally, Sealex Floors are stain-proof and easily cleaned. They cut down maintenance costs.

Sealex Linoleum is quickly installed in new buildings—or right over the old wood or concrete in old structures. When installed by an authorized contractor of Bonded Floors or Bonded Walls, Sealex materials carry Guaranty Bonds on both workmanship and material. Write us for information. On request, our efficient field engineers, located in principal cities throughout the country, will gladly work up specifications on both your new and old floor-covering requirements.

CONGOLEUM-NAIRN INC., KEARNY, NEW JERSEY

SEALEX
REG. U. S. PAT. OFF.
FLOORS AND WALLS

NRA MEMBER U.S. WE DO OUR PART

deadbolt which necessitates throwing the bolt to locked position by turning the knob or dial. This disperses the combination automatically.

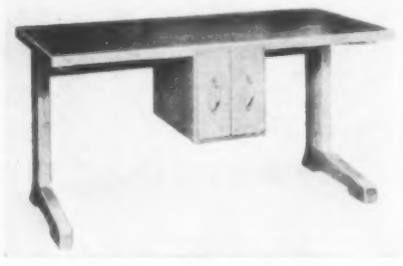
The combination of these new locks may be changed without removing the lock from the door. Both types are available with either cadmium or chromium finish dial and escutcheon. Each combination consists of three numbers, and each installation of master-keyed locks is under a special master-key.

Charts are provided to enable schools to record new lock assignments in order to simplify supervision.

A New Type of Desk and Chair for the Classroom

There are many points to consider in selecting classroom desks and chairs. The furniture must be rugged and substantial in construction, it must be adaptable to various classroom uses and must ensure correct posture. Consideration must also be given to the ease of dusting the desk. Smooth surfaces with no cracks or ledges simplify this procedure.

The furniture must be designed to allow cleaning the floor with standard equipment, and complete and thorough cleaning must be accomplished with a minimum of effort. This means that floor spaces must be open and accessible. If the desk is of a movable type, the points of contact with the floor must be sufficiently large to prevent marring. Dents and grooves are likely to occur with linoleum and composition tile floor if the bearing surface is small.



The efficiency desk accommodates two pupils, who are separated by two book cabinets.

Classroom seating has been developed to meet many of the new demands. One of the latest developments is the Classroom Efficiency Desk, made by the Standard School Fixtures Co., Murray Building, Grand Rapids, Mich. The desk accommodates two pupils. The pupils are separated by two book cabinets, which are slung underneath the table top. Solid birch is used throughout, and a self-locking assembly requires only a hammer blow to drive the locking pins in place. The leg construction used on the desk allows a maximum knee space, and full clearance at either end of the table for ease in arising without excessive noise. The bearing surfaces on each of the four legs is approximately eight inches square.

These desks may be obtained in a variety of special sizes to fit the needs of specific classrooms. The standard sizes, however, are 48 by 18 inches, with a height up to 26 inches, and 50 by 20 inches, with a height up to 30 inches. The desk top may be flat or sloping, inlaid linoleum or solid wood. All corners are chamfered.

The desk may be obtained without storage facilities or with any one of the following six types: a double vertical book file; a double compartment; a two-compartment art file; a five-drawer cabinet; a double tray, or a double open cabinet. These compartments interlock with the desk top and frame to give them rigidity. The files are so placed that they are accessible without moving the chairs.

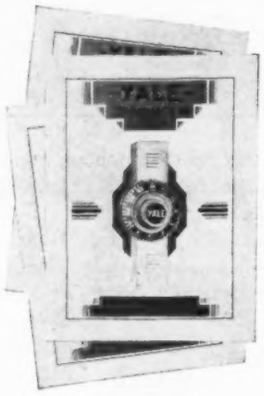
A special posture chair has been designed to harmonize with the new efficiency desks so that the seating arrangements in any classroom may be uniform.

A Safety Tread for Resurfacing Old Stairs

Stairs may be modernized and resurfaced by applying a new type of nonslip safety tread made by the Norton Company, Worcester, Mass. The Alundum Rubber Bonded Safety Tread is composed of alundum aggregate bonded in a reenforced base of hard, tough rubber. Alundum aggregate consists of chips or granules of ceramically bonded alundum abrasive (aluminum oxid), and is not only extremely hard but is also irregular, angular and slightly porous. These qualities cause it to bond securely with the rubber, giving the tread a highly nonslip surface.

These safety treads may be used both for interior and exterior stairs. They are supplied in various lengths and widths, and can be placed directly over old wood, steel, concrete or stone steps. They may be installed by a carpenter or maintenance man.

The alundum unit may be used to cover the entire depth of the tread or it may be applied as a nosing for six inches on the outer edge of the tread. If the latter procedure is followed the area back of the safety tread may be covered with linoleum, rubber tile, wood or any other flooring material. In either type of installation the riser may also be refinished so that a completely resurfaced and modernized stair would result.



We are sending out a new folder on

TRADE **YALE** MARK

LOCKING SYSTEMS *for* SCHOOLS

YALE COMBINATION
PADLOCK NO. 649
The most secure combination padlock yet produced.

THIS interesting folder will assist you in adding greater security, efficiency and simplicity of supervision to your locker system. It describes the complete line of Yale Combination Locker Locks and Padlocks, adaptable to all makes and all types of steel lockers, old and new.

If you have not received your folder, write for it today. You will find it informative and helpful.

No. L3369CM—Cadmium Plated Dial
No. L3369DZ—Chromium Plated Dial
For steel compartment and box lockers. Beveled spring bolt, automatic self-locking. Operates directly on spring latching device. A good lock for replacements.

THE YALE & TOWNE MFG. CO.
STAMFORD, CONN., U. S. A.

First Aid

WOUNDS— however small, may become infected. The prompt use of an effective antiseptic is an important preventive measure.

MERCUROCHROME—2% Solution, H. W. & D.—is a potent germicide and is non-irritating and non-toxic when used in wounds. It is used by physicians and in the leading hospitals.

Literature and a sample bottle will be sent on request.

This seal denotes acceptance of Mercurochrome for New and Nonofficial Remedies by the Council on Pharmacy and Chemistry of the American Medical Association.

HYNSON, WESTCOTT & DUNNING, Incorporated
Baltimore, Maryland, *Dept. N.*

Please send me a Mercurochrome Applicator Bottle for personal use.

NAME .....

ADDRESS .....

NEWS OF THE MONTH

Progressive Education Association Starts Five-Year Experimental Project

At the beginning of the present school term, the Progressive Education Association inaugurated an interesting experiment involving a group of twenty-seven selected secondary schools. Many colleges and universities are cooperating in this project, which has been made possible through the generosity of the Carnegie Foundation. These secondary schools have been set free to engage in experimental study. The cooperating colleges and universities have agreed to waive entrance requirements for these schools for a five-year period, beginning in 1936.

The experiment is being conducted under the direction of a committee of thirteen, including the following: Wilford M. Aikin, commission on the relation of school and college, chairman; Willard Beatty, Bronxville, N. Y.; Dean C. S. Boucher, University of Chicago; Boyd H. Bode, Ohio State University; Carl C. Brigham, Princeton University; Burton Fowler, Tower Hill School, Wilmington, Del.; Will French, associate superintendent of schools, Tulsa, Okla.; Dean H. E. Hawkes, Columbia University; Dean John B. Johnston, University of Minnesota; John A. Lester, Hill School, Pottstown, Pa.; Max McConn, Lehigh University, secretary; Marion E. Park, Bryn Mawr College, Bryn Mawr, Pa., and Eugene R. Smith, Beaver Country Day School, Brookline, Mass.

The list of schools chosen is representative of the whole range of American secondary education, including boarding schools for boys and for girls, large and small high schools, country day schools and coeducational schools. Before accepting any school the committee required its officers to submit plans for curriculum revision.

Among the secondary schools participating are: Altoona High School, Altoona, Pa.; Baldwin School, Bryn Mawr, Pa.; Beaver Country Day School, Brookline, Mass.; Bronxville High School, Bronxville, N. Y.; Cheltenham Township High School, Elkins Park, Pa.; Chicago University High School, Chicago; Dalton Academy, New York City; Denver High Schools, Denver; Fieldston School, New York City; Francis Parker School, Chicago; Germantown Friends School, Philadelphia; George School, George School, Pa.; Horace Mann School for Girls, New York City; John Burroughs School, St. Louis County, Missouri; Lincoln School, New York City; Milton Academy, Milton, Mass.; New Trier Township High School, Winnetka, Ill.; North Shore Country Day School, Winnetka, Ill.; Ohio State University Demonstration School, Columbus; Pelham Memorial High School, Pelham, N. Y.; Roosevelt High School, Des Moines, Iowa; Shaker High School, Shaker Heights, Ohio; Tower Hill School, Wilmington, Del.; Tulsa High School, Tulsa, Okla.; Radnor Township High School, Wayne, Pa.; Winsor School, Boston, and Wisconsin High School, Madison, Wis.

The plan proposes that "the overemphasis which is now placed upon the mere act of getting into college shall be removed and that the unity of the whole educational process shall take its proper place in the student's consciousness and in the aim of both school and college. Through the changes they are now free to make, these schools hope to become more effective in helping young persons to develop the insight, the powers and the self-direction necessary for resourceful and constructive living. They wish to work toward a type of secondary education that will be flexible, responsive to changing needs and clearly based upon an understanding of young people as well as an understanding of the qualities needed in adult life.

Mander New President of World Federation

The fifth biennial conference of the World Federation of Education Associations, held recently at Dublin, Ireland, elected the following officers:

President, Fred Mander, general secretary, National Union of Teachers (England); vice presidents, T. J. O'Connell, general secretary, Irish National Teachers' Organization (for Europe), Dr. Eikichi Kamada, president, Japanese Association, Tokio Imperial University (for Asia), and Dr. Paul Monroe, International Institute, Columbia University, New York City (for America).

Under a provision proposed at the Denver meeting in 1931 and ratified at Dublin, the tenure of office of the president of the federation was limited to one term and rotation among the various countries was accepted as the principle in filling the office. The secretariat was continued in Washington, D. C., under Dr. A. O. Thomas, former president of the federation, with Prof. C. H. Williams, University of Missouri, as secretary and E. A. Hardy, Toronto, Canada, as treasurer.

Florida Employment Law Does Not Affect Teachers

A general statute was enacted by the 1933 Florida legislature which forbids the employment by governmental agencies of any person who has not been a resident of the state for two years. The Florida Education Association opposed the measure because of the tendency toward localism in teaching. Several test cases have been made in the lower courts and the general ruling has been that the law does not affect teachers. No decision has yet been reached by the higher courts.

Federal Aid for Schools Urged by Educators

Federal aid for education, not merely in the present emergency, but as a continuing policy, was advocated in a report issued on September 10 by the national conference on financing of education.

Sweeping changes are suggested in the report. The 150,000 one-room schools which still exist would be supplanted by "central school plants" built under the NRA public works program.

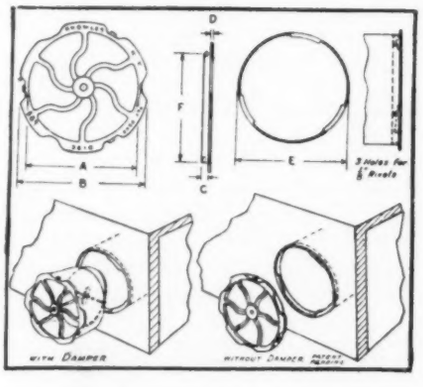
The present school district map of the nation would be obliterated in favor of a map in which minimum rural units would have 1,500 pupils in attendance; urban units 10,000.

CASH
for your
Useless Textbooks

Somewhere, lying forgotten in your library or book room, you have the books we want. Don't let them go to waste; we pay highest prices for discarded and useless school books, both new and used. Shipping boxes furnished free. Write for our 1934 buying catalog, "Cash for Your Useless Textbooks" which lists the books we buy and gives prices.

Edwin Allen Company
Booksellers and Bookbinders
2249 Calumet Avenue CHICAGO

Disc-Loc
FOR SCHOOL AUDITORIUMS



● The ROUND VENTILATOR ● STRENGTHENS GALLERY STRUCTURE ●

● It does a double job. First, serves most efficiently as a gallery riser ventilator, with or without damper.

● Second, its round cast iron ring strengthens the gallery construction, while other shapes tend to weaken it.

● Installed in 10 seconds—no bolts—no screws. Simply insert and twist.

KNOWLES MUSHROOM VENTILATOR COMPANY
41 North Moore Street New York City

International Master Clock and School Program Control Panel.

INTERNATIONAL OFFERS AN INVESTMENT IN PERMANENT ECONOMY

Never before has the need for real economy in school operation been so great . . . abnormal enrollment increases are taxing present educational facilities and budgets to the limit. The danger lies in making those economies which will seriously injure this country's high educational standards.

The advantages presented by International Electric Time and Program Systems . . . and Central Control Radio Systems . . . are more outstanding than ever before. Because they eliminate minute losses and wasted effort, they actually make school money go farther. They represent investments in economy that are permanently beneficial.

Every minute of each day is used to the best advantage . . . teaching staffs are given the opportunity to do more effective work and administrators are placed in a better position to make their efforts yield more productive results for the communities they serve.

International Central Control Panel for simultaneous distribution of all types of speech and sound programs.

NRA MEMBER U.S. WE DO OUR PART

THIS COUPON

Returned to the International Time Recording Division of International Business Machines Corporation, at 270 Broadway, New York, N. Y., will bring you complete details about these economy - producing systems.

Name .....

Address .....

INTERNATIONAL BUSINESS MACHINES CORPORATION
International Time Recording Division
International Time Recorders and Electric Time Systems—International Electric Tabulating and Accounting Machines—International Industrial Scales—Dayton Moneyweight Scales and Store Equipment

GENERAL OFFICES
270 Broadway
NEW YORK, N. Y.

Branch Offices and Service Stations in all Principal Cities of the World

NEWS OF THE MONTH

Plans Announced for 1933 American Education Week; Nationwide Support Urged

More than ten million American homes will receive a message or a personal visit from a teacher during American Education Week, November 6-12. This is part of a nationwide program that has been planned to reach every citizen and inspire him with a determination to save the schools.

The education of parents and citizens with regard to changes that are taking place in American schools is essential for the preservation of the educational program, it is emphasized by sponsors of the movement. The failure of schools in the past to make clear what they are attempting to do, it is pointed out, has led to some of the disastrous retrenchments that are now being forced upon school systems. For this reason, the Joint Commission on the Emergency in Education is making American Education Week a principal feature of its program for educational recovery.

The three sponsors of American Education Week—the American Legion, the U. S. Office of Education and the National Education Association—have sought the assistance of the Joint Commission in selecting the theme and topics for 1933. The program has been planned to be of special help in uniting teachers and citizens in efforts to safeguard the schools. Its effectiveness will be measured, it is emphasized, by the determination and enthusiasm of those who plan the celebration in states and local communities. The general theme for the 1933 program is "Meeting the Emergency in Education."

The following day-by-day topics have been selected: November 6, Increased Responsibilities of the Schools; November 7, Financial Support of the Schools; November 8, What Citizens May Do to Protect the Schools; November 9, Home and School Cooperation; November 10, the Schools and Reconstruction; November 11, the Schools and Loyalty to the Nation; November 12, Safeguarding Character Essentials.

In this nationwide effort to marshal public interest and support for the schools, there is specific work for every person connected with schools and colleges, those in charge of the movement state. The larger the number of people who can be given active service in planning and carrying out the American Education Week program, it is stressed, the more effective the program will be. The importance of beginning early, at least a month in advance, is emphasized. The superintendent of schools, it is explained, will usually take the lead. It is suggested that the local American Education Week committee may be composed of five members, three selected from the schools, and two from lay community leaders. This committee will select topics appropriate for local use.

American Education Week has been observed for twelve years. It is promoted by groups totaling millions of members who are leaders in their communities. It offers a specific, concrete, easily followed plan to bring schools and citizens together, according to those responsible for the plan. The possibilities of American Education Week observance may be seen in the fact that some school systems received more than 60 per cent of the adult population of their communities as school visitors during the Week in 1932.

American Education Week is considered a good time for educators to dedicate themselves anew to the work of interpreting vigorously and militantly through every channel at their command, the strength of American democratic ideals, the part which the school plays and must play in achieving those ideals, and the relation of these democratic concepts to the national well being and advance.

Committees Named to Push School Recovery

An organization to work with the government in its recovery program so far as it affects the schools of the country was set up at the recent meeting in Washington, D. C., of the National Council of State Superintendents and Commissioners of Education.

Four committees to which various recovery agencies can turn for advice and information were appointed. One committee will cooperate with the public works administration in its loan program for school buildings; another with the relief administration in its work-relief for unemployed school teachers; a third "textbook" committee will be ready to spread any new teaching program the National Recovery Administration may deem advisable, and a fourth will deal with the whole relationship between the country's school systems and the federal government.

Dr. George F. Zook, U. S. commissioner of education, presided at the meeting. Harold L. Ickes, public works administrator, explained how the $3,300,000,000 federal fund would help in school building construction and would aid school finances.

Annual Book Week Will Be Held in November

November 12 to 18 are the dates of Book Week, nationally observed each year in schools, parent-teacher associations, libraries and bookshops. The special theme chosen for the 1933 week is "Growing Up With Books," a theme that suggests a wide variety of interesting and stimulating book exhibits and classroom projects. The National Association of Book Publishers, 347 Fifth Avenue, New York City, which annually acts as headquarters for Book Week, has issued a leaflet of suggestions for school observances and a striking new photographic poster. To cover shipping and mailing costs, the association asks that teachers send twenty cents with their requests for publicity material for the week.

In announcing the theme the Book Week committee pointed out that the children of today are growing up into a new world and will probably have more leisure hours than former generations of Americans have known, leisure that can be immeasurably enriched by the reading habit. If they have easy access to books at home, in school and classroom libraries and in the public libraries, children will literally "grow up with books," taking them for granted as an indispensable part of everyday life.

Sound Reenforcing

for

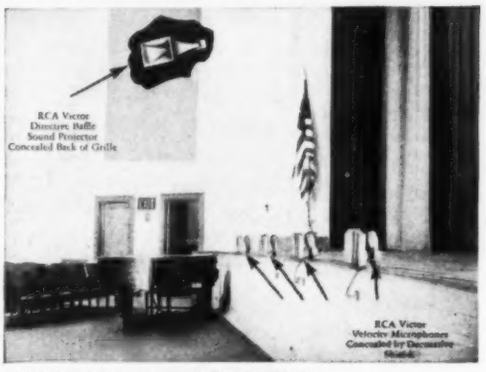
PUBLIC ADDRESS AND MUSICAL REPRODUCTION

1. Portable Equipments for any Application.
2. Stationary Installations for any Auditorium or Assembly Hall.
3. Sound Distribution Systems for the Entire Building with Central Control.

ANYTHING IN SOUND

REPRODUCTION AND AMPLIFICATION

Convenient loose-leaf pocket binder containing a wealth of information sent on request.



RCA Victor High Fidelity Sound Reenforcing System as Installed in Auditorium of Abraham Lincoln High School, Brooklyn, N. Y.

CENTRALIZED SOUND SECTION

RCA VICTOR Company, Inc.

CAMDEN, N. J.

"Radio Headquarters"

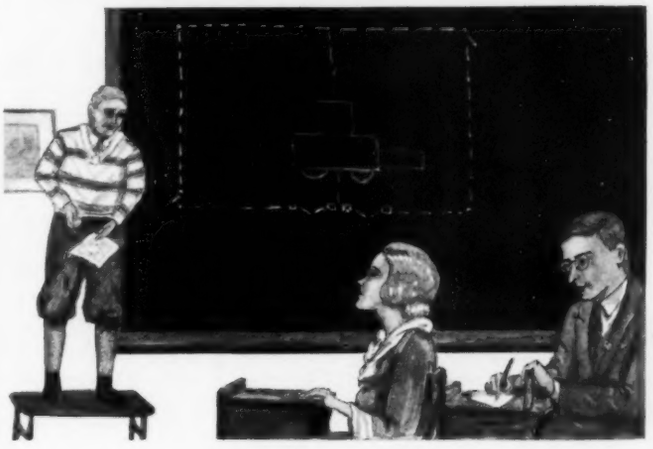
Stage ● Equipment

Velour Curtains • Draperies • Scenery and Rigging • Equipment of the Highest Quality • Service and Installation by Experienced Personnel • Write

TWIN CITY SCENIC COMPANY

569 SOUTH CLINTON STREET, SYRACUSE, N. Y
2819 NICOLLET AVENUE, MINNEAPOLIS, MINN.
25 HENRY STREET, DETROIT, MICHIGAN

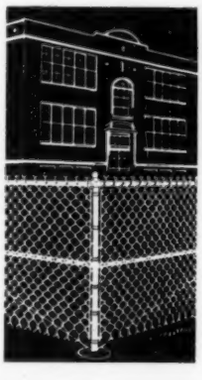
CAN YOU ANSWER THIS QUESTION?



During intermission periods — are the children entrusted in your care safe from traffic dangers? And—are buildings and equipment adequately protected from malicious intrusion?

School officials, whose buildings and playgrounds are surrounded by Cyclone Fence, can answer in the affirmative. For them—the orderly control of pupils has become a routine matter—and they rest secure in the knowledge that their property will remain unmolested.

It will take but a few minutes of your time to secure all of the facts relating to dependable Cyclone Fence. Write today for detailed information concerning its superior construction features — ease of erection and greater economy. Address Dept. N. S.



Cyclone—not a "type" of fence—but fence made exclusively by Cyclone Fence Company and identified by this trademark.

CYCLONE FENCE COMPANY

GENERAL OFFICES: WAUKEGAN, ILLINOIS

Branch Offices in Principal Cities

SUBSIDIARY OF UNITED STATES STEEL CORPORATION

Pacific Coast Division: Standard Fence Co., Oakland, Calif.

Cyclone Fence

REG. U.S. PAT. OFF.

NEWS OF THE MONTH

Study of Standards and Procedures for Evaluating Work of High Schools Is Proposed

A cooperative study of standards and procedures for evaluating the work of high schools throughout the United States will soon be made if the proposals set forth by representatives of the regional associations of colleges and secondary schools are accepted.

The study, which would have far-reaching effect on high schools of the United States, was recommended by representatives of regional associations meeting in the conference room of the U. S. Office of Education in Washington. The meeting was called by Dr. George F. Zook, U. S. commissioner of education, as the result of a request from representatives of the associations.

In drafting proposals for a study of standards and procedures for evaluating secondary schools, the conference urged that: (1) present standards and procedures of the various associations remain in effect until new ones are formulated and adopted by the respective associations; (2) that new standards be created, first, by testing old standards and retaining such elements as seem satisfactory, second, by evolving new standards through research; (3) that evaluating procedures be developed through careful experimentation; (4) that standards looking toward improved practices in education be developed, and (5) that all standards be adapted to the needs of the various regions.

The conference established an executive committee to prepare a plan for the proposed study. The plan will be presented to the various regional associations for the purpose of enlisting their support, and later to some foundation interested in the promotion of education, for the purpose of securing adequate finances to conduct the necessary investigations.

In its report the conference pointed out that regional accrediting agencies have been rendering valuable and voluntary service to colleges and secondary schools. To perform the service, standards have been developed for evaluating the effectiveness of these schools. These standards have been satisfactory for the most part, until the last few years, the association representatives declared. As a result of profound changes in education and social conditions, the leaders of the various regional associations have begun to question their own policies, standards and recommendations.

Evaluating high schools for accrediting purposes is a task now largely in the hands of the state departments of education and the regional associations of colleges and secondary schools.

F. E. Carrothers, University of Michigan, was elected chairman of the Committee for Cooperative Study of Secondary School Standards and Accrediting Procedures. E. D. Grizzell, University of Pennsylvania, was chosen chairman of the executive committee. Carl A. Jessen, U. S. Office of Education specialist in secondary education, is secretary of both committees.

Cooperative Tests Gain in Popularity

Eighteen states now have cooperative testing programs for their high school pupils, it is pointed out by Dr. David Segel, specialist in tests and measurements, in a new U. S. Office of Education bulletin, "National and State Cooperative High School Testing Programs."

Increasing popularity of cooperative testing is due, Doctor Segel says, to the fact that "the work of the individual pupils in one school can be compared with the work of the pupils in all schools."

In addition to the state cooperative testing services there are six national testing programs. One of these national services, the college board entrance examination, gave examinations to 19,929 high school pupils in 1932.

In some of the states even greater numbers of pupils take part in the cooperative testing programs. More than 190,000 examinations in thirty-four subjects were given to Minnesota high school pupils in 1932.

The chief reasons for giving cooperative tests, Doctor Segel says, are:

1. Tests give scholastic endeavor attention such as is centered on physical competition of various sorts between schools. Scholarships in colleges are often awarded to individual winners. Comparative results also serve to make the marking of pupils in high school more accurate.

2. Some of the examinations emphasize the application of principles to the solution of problems rather than the memorization of facts. The result is a freeing of the teacher from too great dependence upon the textbook.

3. For many years such tests have been used in determining admission of students to college.

4. Records of the growth of an individual over a comparatively long period of time will provide a better means of predicting success in school or in different curricula.

5. Cooperative tests aid in the supervision of high schools by state authorities.

6. Test results yield important data for research on problems, such as different methods of instruction, different textbooks and size of class.

Nation's Colleges Need Pioneer Spirit, Says Chase

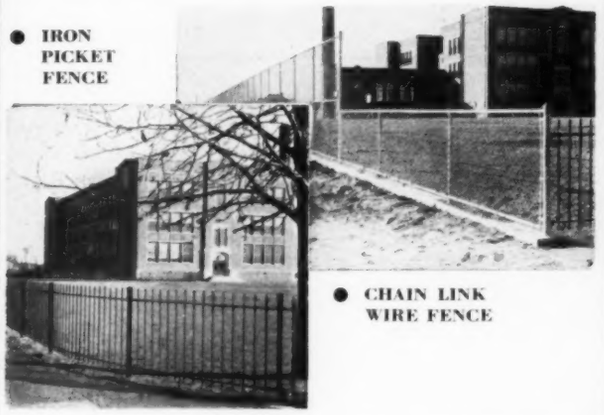
The university is no longer a cloister and if it turns away from the social and economic problems of the world it does so at its own peril and the peril of future generations. This thought was expressed by Dr. Harry Woodburn Chase, newly elected chancellor of New York University, at the convocation exercises on October 2.

"Universities are among the great fundamental, permanent forces of civilization," Doctor Chase said. "They endure while governments and national boundaries shift. Their mission is the double one of transmitting to each new generation as it matures, what is fine and permanent in the traditions of the past and the civilizations of the present and at the same time of pioneering into the unknown in search of what is new. No university can be truly great that does not do both these things well."

The formal installation of Doctor Chase as eighth chancellor of the university will take place next June at the one hundred and second commencement exercises.

RISK VS. PRECAUTION

● IRON PICKET FENCE



● CHAIN LINK WIRE FENCE

The little tots, those making their first pilgrimage to school need and deserve every protection you can offer them. Stewart Chain Link Wire and Iron Fences have protected America's school children for 47 years.

Literature and address of local office sent upon request.

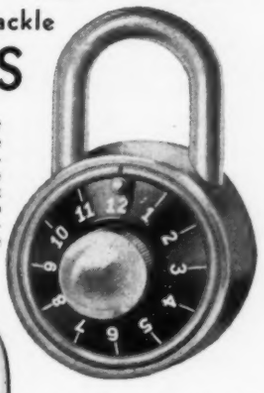
Stewart IRON and WIRE FENCES

THE STEWART IRON WORKS CO., *Inc.*
906 Stewart Block, Cincinnati, Ohio

ROCKFORD

Combination Shackle LOCKS

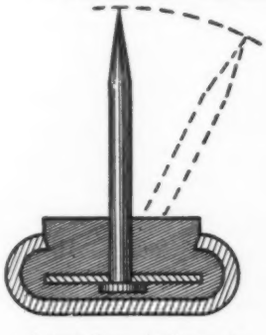
—abolish student keys. Have the Self-Locking Feature. Insert the Shackle; the Lock is locked. To open, it is necessary to re-dial the combination.



Rockford Shackle Locks No. 265, above at left (Keyless), and No. 276, above at right (Keyless, click), are recommended wherever a Keyless system is desired. Write for complete information covering the Rockford Series of School Locks.

Rockford Shackle Lock No. 264, at left, may be master keyed in series with other Rockford School Locks with a Paracentric type key. This plan simplifies school lock administration and supervision. Illustrations are two-thirds actual size.

National Lock Co.
Rockford, Illinois



Dotted lines indicate degree to which chair may be tilted while glide remains flat on floor. The rubber cushion absorbs all noise, and washer prevents nail from pulling out.

THE backward child is often slow in its studies because of nervousness caused by unnecessary noises and distractions. Quietness in the schoolroom is essential to efficient study, and much of the noise may be eliminated by the use of

DARNELL *Noiseless* GLIDES

DARNELL NOISELESS GLIDES not only protect floors, but enable you to move chairs and light furniture smoothly, and noiselessly.

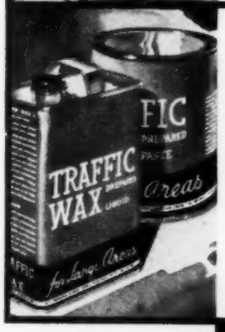
Write for FREE Sample Set
DARNELL CORPORATION, LTD.
STATION B, BOX 2008-N, LONG BEACH, CALIF. .. 32 N. CLINTON ST., DEPT. G, CHICAGO, ILL.

two NEW JOHNSON PRODUCTS!

NO BUFF *floor finish*

• The Johnson Company, makers of Glo-Coat, the best known and fastest selling water emulsion polish on the market, has now developed a new special product of this no-rubbing, no-polishing type for large floor areas.

• In this new product, No Buff Floor Finish, an ideal balance has been maintained between the qualities of long wear, easy application, quick drying, high lustre. New lower prices in effect.



TRAFFIC WAX

(Liquid or Paste.) • This new product, Traffic Wax, is a genuine wax made as nearly perfect as possible for hard service on large floor areas. We believe it is the most economical long-wearing product ever developed for maximum protection and maximum beauty to floors.

• Traffic Wax comes in both liquid and paste forms. New scale of prices makes genuine wax maintenance more economical than ever.

Free samples

WRITE
S. C. JOHNSON & SON, Inc.
RACINE, WISCONSIN

In the Educational Field

J. M. GWINN has retired as superintendent of schools, San Francisco. MR. GWINN, who has been in charge of the San Francisco schools since 1923, served as president, Department of Superintendence, N. E. A., 1927-28.

C. N. JENSEN is the new superintendent, Jordan School District, Sandy, Utah, succeeding D. C. JENSEN, who has resigned.

R. P. FORD has been appointed superintendent of schools, Alma, Ga. MR. FORD will also have charge of the Bacon County school system.

DR. F. M. REGISTER has been appointed superintendent, Caswell Training School, Kinston, N. C. DOCTOR REGISTER, who has been engaged in public health work for many years, succeeds DR. W. HARVEY DIXON.

JOHN W. MOORE, for the past ten years principal, Richard J. Reynolds High School, Winston-Salem, N. C., has been elected superintendent of schools in that city, succeeding R. H. LATHAM, who has served in that capacity for the past twenty-three years.

EARL ROUNTREE has succeeded J. D. PRITCHARD as superintendent, Hillview Consolidated High School, Collins, Ga.

SAMUEL J. PRESTON, superintendent, Westchester County School District No. 1, died September 6 at his home in White Plains, N. Y. He was seventy-seven years of age. Mr. PRESTON would have celebrated his twenty-second anniversary as superintendent of the district on September 7.

WILLIAM C. HAY has been named superintendent, Warm Springs School, Warm Springs, Ga.

R. O. POWELL, for the past two years superintendent of schools, Winder, Ga., has been appointed head of the school system, Cumming, Ga.

LEO SCHULTZ has been elected superintendent of schools, Cairo, Ill. MR. SCHULTZ was formerly head of the manual training department in the city's schools.

JOHN P. MCCABE, assistant principal, Boys' High School, Brooklyn, N. Y., died on September 21 at his home in Brooklyn. He had been ill but a short time.

F. M. HAISTON has resigned as superintendent, Hanover School District, Hanover, Pa.

AMOS F. STAUFFER, assistant superintendent of schools, Jersey City, N. J., has retired. MR. STAUFFER has been associated with the Jersey City schools since 1904, and was named assistant superintendent in 1928.

A. T. STOLEN has been named superintendent of schools, Eau Claire, Wis., succeeding PAUL G. KELLER, who has retired after thirty-five years of service in the schools of the state.

J. J. UNGER, superintendent of schools, Cumberland County, New Jersey, for more than twenty years, has retired, and will be succeeded by CHESTER ROBBINS, superintendent of schools, Bridgeton, N. J. MR. UNGER has been engaged in educational work for more than fifty years.

FRANK M. LONGANECKER, formerly superintendent of schools, Racine, Wis., has been appointed to succeed J. T. HOOPER as superintendent, State School for the Blind, Janesville, Wis.

A. C. ELDREDGE, assistant superintendent of schools, Cleveland, for nineteen years, has been transferred to the principalship of James Ford Rhodes High School.

LOWELL E. SMITH, for several years superintendent of schools, Madison, Kan., is now principal, Maple Hill Rural High School, Maple Hill, Kan.

H. A. TWEED has been elected superintendent of schools, Pentwater, Mich. MR. TWEED was previously superintendent of the high school, Marlette, Mich.

E. E. STEWART has been named superintendent of schools, Amherst, Colo. Other new city superintendents in Colorado are: ROY D. FARTHING, Briggsdale; A. L. COLLIER, Campo; V. A. WINN, Crook; H. L. DOTSON, Delta; W. H. LANCASTER, Eastlake; J. C. CALDWELL, Estes Park; PEARL CLARK, Hartman; JACK BOYD, Haswell; N. E. CANTRIL, Hayden; C. A. ANDERSON, Hooper; C. B. MINEAR, Idaho Springs; DON WIGLE, Kersey; B. R. GREENE, Kiowa; W. R. WREN, La Jara; H. A. VAN DYKE, La Porte; J. H. BUCHANAN, Lamar; A. E. STANSBURY, La Veta; DEAN DALBY, Monument; E. Y. HILL, Pritchett; G. F. CROSS, Rifle; L. N. STONECKER, Saguache; Ray MORELAND, Sugar City; W. R. ROSS, Trinidad; E. P. BELL, Weldona, and H. D. PRATT, Wellington.

CLARENCE V. SLOAN has been elected superintendent of schools, Phillipsburg, Pa., succeeding FRANK D. MUNROE. MR. SLOAN has been principal, Phillipsburg High School, since 1909.

WILLIAM SLATER has been named headmaster, Adelphi Academy, Brooklyn, N. Y.

J. M. LYLE, JR., formerly superintendent of schools, Southwick, Idaho, is now head of the public school system, Kendrick, Idaho.

JAMES CLOVE is the new superintendent of schools, Murray, Utah, succeeding E. ALLEN BATEMAN, who has been appointed superintendent at Logan, Utah.

H. G. MORGAN, principal, Montpelier High School, Montpelier, Ind., for the past three years, has been appointed superintendent of schools, succeeding the late L. E. KELLY.

P. G. GALLOP has been named superintendent of schools, Pamlico County, North Carolina. Other new county superintendents in North Carolina include the following: JOHN W. COMER, Surry County; GROVER C. BUSH, Transylvania County; J. W. WILSON, Wayne County; C. B. ELLER, Wilkes County.

MANSUR STEWART has been elected superintendent of the Rocky schools, Washita County, Oklahoma.

CLARENCE HUNNICUTT, for the past four years superintendent of schools, Muskogee County, Oklahoma, is now head of the city school system, McCurtain, Okla.

R. V. HANKEY is the new superintendent of schools, Carter County, Oklahoma. Other new county superintendents in Oklahoma are: LON C. RICE, Bryan; BLANCHE FARLEY, Logan; ERTIS SASSEEN, Washita; MARIE HADDAN, Mayes; J. F. QUISENBERRY, Woodward; RAYMOND GARY, Marshall; JOHN W. COVENTON, Wagoner; JAMES W. STATEN, Nowata; JOHN E. MARTIN, Grady; HOWARD N. SCOTT, Ottawa; HERBERT D. FLOWERS, McCurtain, and CARL ANDERSON, Lincoln.

Lower Cost Seating

Without Sacrifice of Comfort and Posture Values

WHEN restricted budgets limit expenditure, seating costs can be reduced without ignoring quality, and without sacrifice of educational efficiency, by making selection from the "American" line.

Our line of classroom furniture always includes good low-cost types built to the same high standards of quality this company has always maintained; types which by correct designing include hygienic features which protect health and provide comfort by inducing good posture.

A New Sight-Saving Desk—The American Henderson-Universal, with top tiltable to various slopes and movable to and from the pupil, bringing work to proper focal distance and vision angle, is our latest development. Descriptive literature on request. Please address Dept. NS10.

No. 280

No. 262

NRA MEMBER U.S. WE DO OUR PART

American Seating Company

Makers of Dependable Seating for Schools Churches and Public Auditoriums

GENERAL OFFICES: GRAND RAPIDS, MICH.

Branches in all principal cities and accredited distributors in all trade area

SPENCER CENTRAL CLEANING SYSTEM

Used by more than 2,000 schools because it saves time and money and protects health by removing all dirt and dust to a container in the basement.

The Spencer Heavy Duty Portable — using the same tools—is available at a new low cost.

ASK US to show you one of these machines in your vicinity

THE SPENCER TURBINE CO.
HARTFORD, CONN.

A-2220

Announcing

THE NEW HOLTZER-CABOT CORDLESS ELECTRICAL DISTRIBUTION PANEL FOR SCHOOL LABORATORIES.

ALL VOLTAGE AND CURRENT DISTRIBUTION IS ACCOMPLISHED BY SWITCHES AND NON-REMOVABLE SLIDING TRANSFER PLUGS . . . ALL CORDS ARE ELIMINATED. IMPOSSIBLE TO GET WRONG CONNECTION OR REVERSE POLARITY.

Write for Full Particulars

OUR CATALOGUE IS FILED IN SWEET'S

The Holtzer-Cabot Electric Co.

BOSTON

Offices in All ESTABLISHED 1878 INCORPORATED 1888 *Principal Cities*

PIONEER MANUFACTURER OF SCHOOL SIGNAL SYSTEMS

A Problem Solved by Experience

AMERICAN SCHOOLS

Folwell School
Minneapolis, Minn.

Architect, E. H. ENGER, School Board Architect.

Contractors, PIKE & COOK, Minneapolis.

The problem of flooring for your schools may seem like a sticker, but it's really the easiest problem in the book. Follow the solution worked out by the Minneapolis School Board; select ROBBINS Hard Maple and pass the strictest examination with a perfect mark. That greatest teacher, Experience, has conclusively proved the answer time after time.

Write us today for complete information about ROBBINS Hard Maple Flooring for schools.

Robbins Flooring Co.
RHINELANDER, WISCONSIN

In the Educational Field

J. T. WILLIAMSON is the new superintendent of schools, Hobart, Okla., succeeding JOHN COFFEY, who has accepted a similar position at Stroud, Okla.

F. W. STUKENBROEKER, formerly of Scandia, Kan., has been named superintendent of schools, Ala Vista, Kan., succeeding ROY SPEAR. MR. SPEAR is now head of the school system, Mount Hope, Kan.

W. J. TAYLOR has been elected superintendent of schools, Chowan County, North Carolina, succeeding R. H. BACHMAN.

HUGH DOYLE, principal for the past five years, has been named superintendent, Gaylord Public School, Gaylord, Mich., succeeding CHARLES HURD, who resigned recently after serving in that position for five years.

R. H. ATKINSON is the new superintendent of schools, Dare County, North Carolina, succeeding F. T. JOHNSON.

JACK MESSER has succeeded HOMER HENRY as superintendent of schools, Haywood County, North Carolina.

DR. SAMUEL KATZ has been appointed principal, Nathan Hale Junior High School, New York City. DOCTOR KATZ was formerly identified with P. S. No. 156, Brooklyn, and has had thirty years of educational service in the city schools.

HAROLD G. CAMPBELL, deputy superintendent of schools, New York City, has been assigned temporarily to the duties of EUGENE A. COLLIGAN, former associate superintendent, who resigned from the board of superintendents on September 1 to become president of Hunter College.

J. C. WRIGHT has been named superintendent of schools, Wynnewood, Okla.

CHARLES MCKENNY, president-emeritus, State Teachers College, Ypsilanti, Mich., died September 24.

D. M. ROBINSON is the new superintendent of schools, Madison County, North Carolina, succeeding C. M. BLANKENSHIP.

A. H. HATSELL has succeeded B. B. C. KESLER as superintendent of schools, Onslow County, North Carolina.

C. D. BROOKER, who has been superintendent of schools, Lexington, Okla., is now superintendent of schools, Marland, Okla., succeeding G. L. HARRISON.

H. C. MARSHALL has been elected superintendent of schools, Quinton, Okla.

HARVEY M. BLACK, formerly superintendent of schools, Haileyville, Okla., is now head of the school system, Hugo, Okla.

JAMES PRINCE has been named superintendent of schools, Wagoner, Okla., succeeding B. F. JOHNSON.

C. L. HONNOLD is the new superintendent of schools, Tuttle, Okla., succeeding W. F. BREWER, who is now in charge of the schools, Lindsay, Okla.

ALBERT E. LEE has been elected superintendent of schools, Bladen County, North Carolina, succeeding W. W. WOODHOUSE.

E. C. LEARY is the new superintendent of schools, Camden County, North Carolina, succeeding D. B. BURGESS.

EDITH M. HILL, principal, Clifton Public School, Cincinnati, for the past nine years, died recently. MISS HILL had been identified with the Cincinnati school system for twenty-eight years.

SAMUEL M. NORTH, state supervisor of high schools for Maryland since 1916, retired on October 1. DOCTOR NORTH will be in charge of supervision of instruction at the McDonogh School, a large institution for boys, near Baltimore.

J. S. BLOSSER, superintendent of schools, Hollenberg, Kan., is retiring from the teaching profession after forty-nine years of service.

C. D. MILLER, formerly superintendent of schools, Claflin, Kan., is head of the school system, Greensburg, Kan.

DR. ELIAS LIEBERMAN, principal, Thomas Jefferson High School, Brooklyn, N. Y., is back at his desk after a term's sabbatical leave of absence.

A. M. THOROMAN has resigned as superintendent of schools, Iola, Kan.

Eighty Per Cent of Rural Schools Held Antiquated

Eighty per cent of all rural school buildings in the United States and 60 per cent of the elementary schools in cities are unsatisfactory and should be replaced by modern structures, according to Prof. N. L. Engelhardt and Prof. George D. Strayer, New York Teachers College. "There are still in the United States," says Professor Engelhardt, "thousands of rural schools that are unfit habitations for children. They meet no reasonable standards of lighting, ventilation, sanitation or safety."

Elimination of noises from without and prevention of unnecessary noises within are a requisite of modern school planning, Professor Engelhardt and Professor Strayer both emphasize. "Rooms from which sounds emanate, such as the cafeteria, the woodworking shop, the gymnasium and playrooms should be located so there is a minimum of transfer of noise from these sources to other rooms. Building construction should be of such a nature that there is a minimum of transfer of noises from corridor to classroom, or vice versa. Corridors should be treated to absorb travel and speech sounds. Especial attention should be given to the reduction of sounds in service rooms, including water supply, heating, ventilation and plumbing systems. Rooms, like the auditorium, the gymnasium and the cafeteria, should receive sound treatment."

City Superintendents Meet in Michigan

The fourth annual meeting of the Conference of City Superintendents, a department of the Michigan Education Association, was held in Bay City, September 22 and 23. The program consisted mainly of informal discussions on varied topics.

Dr. George Earle Raiguel was the principal speaker at the banquet. His subject was "Social, Political and Economic Changes in the United States." Doctor Raiguel returned recently from Europe where he attended daily for three weeks the London Economic Conference. H. A. Wood, Munising, is president of the conference.